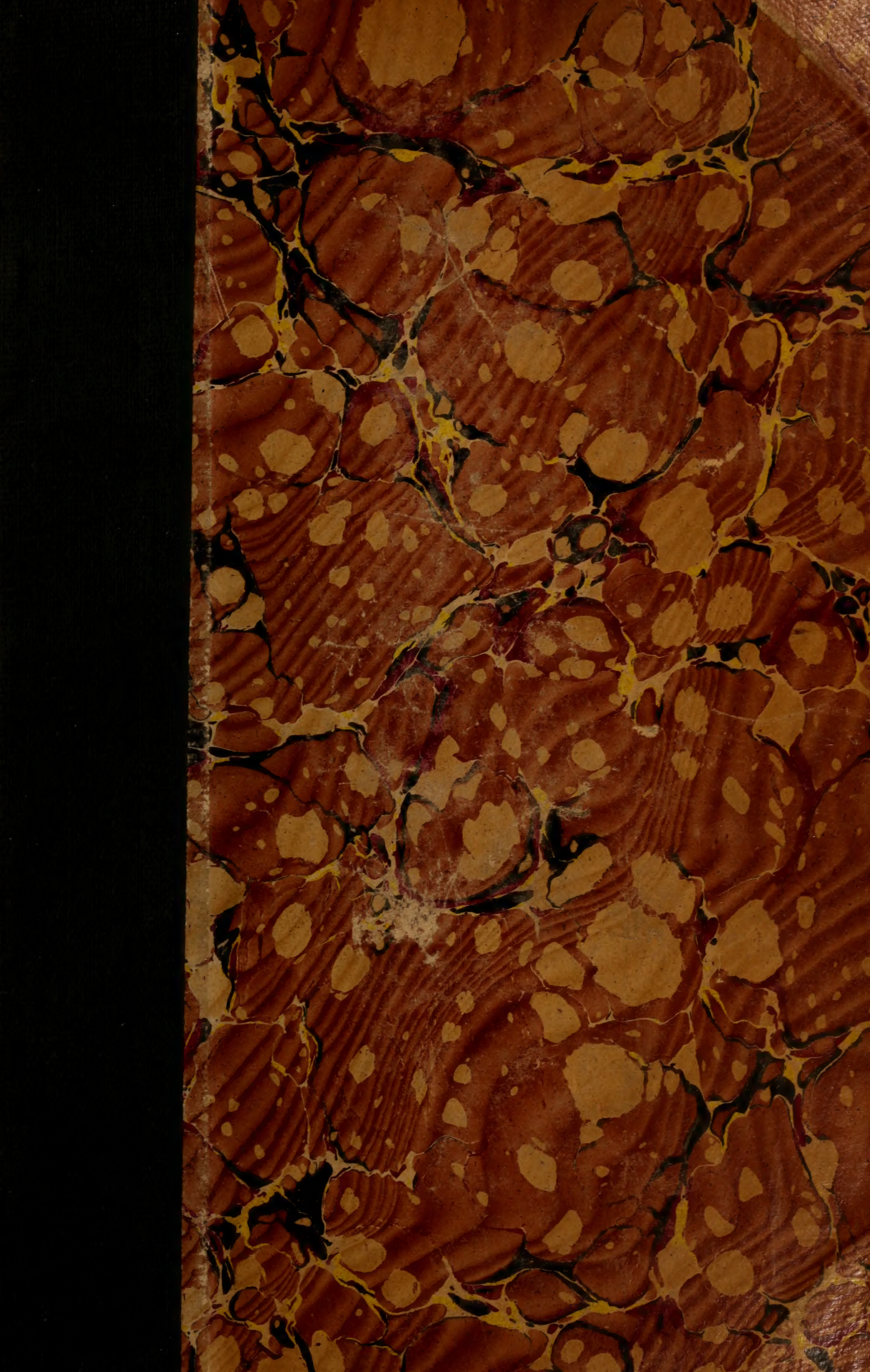
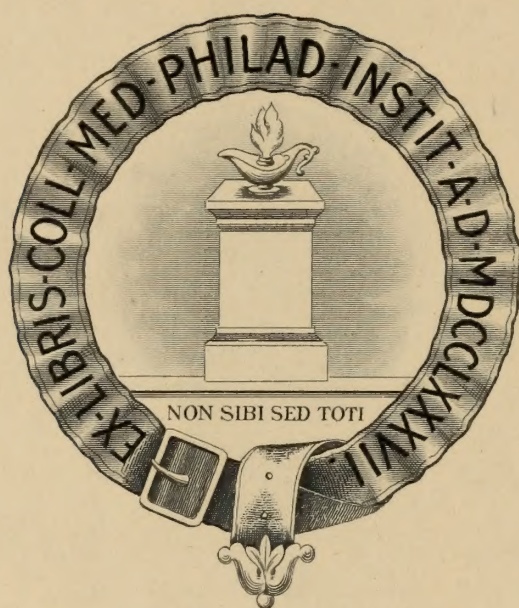




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BUFFALO MEDICAL JOURNAL

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ORIGINAL ARTICLES

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The Industrial Diseases: Their Importance and Methods of Study

BY W. GILMAN THOMPSON, M.D.

Professor of Medicine, Cornell University Medical College in New York City

[A paper read before the Academies of Medicine in Buffalo and in Rochester, April 8th and 9th, 1913]

THE industrial development of this country has been so rapid, so varied and extensive, that few persons have realized the degree to which concomitant diseases have arisen as a result of industrial hazards. These diseases may be defined as resulting: (1) from contact with harmful materials, (2) from harmful methods of work, (3) from harmful environment. An illustration of the first group would be poisoning by inhaling wood alcohol fumes or phosphorous fumes; of the second group would be the locomotive engineer's sciatica, due to sitting sidewise on a bench, subjecting the right hip to constant pressure and jolting; of the third group, would be compressed air illness from working in a caisson, where not the materials used, nor the mode of handling them constitute the hazards, but the environment of increased atmospheric pressure.

It is natural that the industrial accidents should first have received attention, for in many cases the relationship of cause and effect are immediate and obvious even to the layman. But the industrial diseases are, for the most part, of insidious and chronic development, and when acute their symptoms may be so unfamiliar as not to be attributed to their true cause, even by physicians. For instance, I have known a fatal acute case of wood alcohol poisoning in a man employed to varnish the interior of a closed beer vat to be diagnosed as death from "epilepsy."

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Comparatively few persons are aware that a man may acquire tremors, paralysis and a premature senile dementia from making felt hats, because they are dipped in a nitrate of mercury solution. Nor do they know that drop wrist may result from pottery glazing, or that both jaws may be lost from making white phosphorus matches, or that the septum of the nose may become perforate from making chrome pigments. Yet all these are not casual but almost certain dangers under peculiar conditions of work, conditions which, with proper knowledge and enforcement of hygienic precautions, are easily remediable.

Although a number of isolated studies of industrial diseases have from time to time appeared in the medical literature of this country, and a few more have been made by state health departments, labor bureaus and factory commissions, it is only very recently that the subject has begun to excite widespread interest or that investigations have been begun upon a comprehensive scale. In June, 1910, the first American National Conference upon Industrial Diseases was convened in Chicago, and in a memorial addressed by it to the President, it was stated that there occur annually in the United States, thirteen million four hundred thousand cases of sickness among artisans and craftsmen, many of which are attributed to occupation hazards, involving a total annual economic loss of nearly three-fourths of a billion dollars. It is high time, therefore, that physicians bestir themselves to look carefully into the problems involved and aid in gathering accurate data, in order clearly to differentiate the influence of occupational environment and disease hazard in special lines of work.

The second meeting of this conference took place in conjunction with the last meeting of the American Medical Association in June, 1912, and for the first time the latter organization devoted considerable discussion to the industrial diseases. In September of last year the International Congress of Applied Chemistry, meeting in Washington, for the first time also devoted a session to the subject of industrial poisons.

In foreign countries, on the other hand, notably in England, Germany, France and Belgium, the industrial diseases have long been systematically studied and the idea that Employers' Liability Acts should cover pecuniary responsibility for diseases as well as injuries acquired through dangerous trades, has been incorporated into statutes. This idea is rapidly extending through this country, and as a basis of legislation it is realized that authoritative statistics should be obtained, hence the enactment of the physicians' notification law, for specified industrial diseases occurring in this State, which went into effect in September,

1911. This law was copied almost verbatim from a similar notification act of Great Britain, although the latter now comprises 28 industrial diseases instead of the six which we are required to report in New York. Eight other States, namely, California, Michigan, Wisconsin, Connecticut, Illinois, New Jersey, Maryland and Minnesota, have lately fallen into line and passed a similar law to that of New York, requiring report in some cases to State Labor Bureaus, in others to State Health Departments.

It is extremely desirable that physicians should offer earnest co-operation in this matter of reporting, for the subject of industrial diseases is of pressing importance not only from the point of view of medical science but as well from its humanitarian, economic and legislative aspects. Industrial *accidents* can be diagnosed and reported in many cases by laymen, but the physician is usually the only one who can determine the nature and extent of industrial *diseases*, and rightly apportion the influence, for example, of a metal poison in producing arteriosclerosis or nephritis, as compared with such coincident factors as alcoholism and syphilis. It is a great mistake to rush hastily into remedial legislation until we possess more definite knowledge of the prevalence and seriousness of the diseases caused by industry.

Up to the present time, in the United States, legislation, with only one or two exceptions, has taken the form, as far as industrial diseases are concerned, of attempting to regulate factory ventilation, a problem which is of extreme difficulty owing to the lack of universally accepted standards. About twenty states have vague laws requiring that factories shall be "well ventilated" or "sufficiently ventilated," and ten states specify a minimum cubic air space per occupant. New York State is the only one which provides for systematic analysis of factory air with publication of the results, and Illinois has made good progress in maintaining compulsory standards of air purity. With the exception of these two states, together with New Jersey and Massachusetts, there has been little or no scientific factory inspection in the whole country, designed specifically to control industrial diseases. In the states mentioned, however, some very valuable intensive studies have been made by official inspectors of special industries, notably of the lead, pottery and pearl button industries, as well as those involving the use of mercury and phosphorus.

Although statistics of the industrial diseases are as yet very meagre in this country, I am able to present a sufficient number to be convincing that the subject amply merits all the attention which is being given to it, and I will refer briefly to a few of the more important industrial disease hazards. There are about 150

distinct occupations in which lead poisoning is prevalent, and 27 in which arsenic constitutes the hazard, although the substitution of analine dyes has largely replaced the use of the latter substance in the coloring of wall papers and artificial flowers.

Dr. John B. Andrews, in *Bulletin*, 95, of the State Bureau of Labor, reported 60 fatal cases of lead poisoning occurring in New York State in 1909-10. Three more fatal cases recently occurred in a single smelting establishment in New York City.

Dr. E. E. Pratt, investigating for the Committee of the Labor Legislation Association, recently found eighteen cases of lead poisoning among men employed in the Brooklyn Navy Yard to scrape red paint from the hulls of the battleships. Three of these men came to my clinic with lead palsy.

In my service in the Presbyterian and Bellevue Hospitals and the Cornell University Medical College Dispensary, I have collected the histories of over 300 cases of serious plumbism observed during the past eight years, 75 per cent. of which were among painters. In most of these cases there was total incapacity for work, lasting for months or years. Some of these patients had complete paralysis of the hands, many had lead colic, and most had arterio-sclerosis. Some acquired chronic Bright's disease and practically all suffered from anemia, digestive disorders and muscular weakness. One youth of 23 years had been employed for eight years in a paint manufactory as a helper. He had the hardened arteries of the octagenarian, a greatly enlarged heart, diseased kidneys and dyspnoea.

A bill designed to mitigate lead poisoning, particularly in the pottery industry, was introduced recently in the New Jersey Legislature. Having passed the Assembly it was blocked in the Senate by the statements of a representative of some of the lead industries, but in the very town in which this man lives, the records of ninety-four cases of lead colic, drop wrist, etc., have since been taken from the records of a single physician.

Dr. Alice Hamilton, in a report on the white and red lead industry for the United States Department of Labor, found examples of lead poisoning in thirty-three of fifty-six establishments where lead was used in process of manufacture, with a yearly average of 665 cases. It is a very striking fact that in England, in the white lead works near Newcastle, compulsory medical inspection has so far reduced the cases of lead poisoning that in 1910 the ratio was one case among every 264 employees, whereas in Illinois, without legalized inspection and control, the ratio was one case among every seven employees.

Mercury poisoning was formerly common among the makers of mirrors, but the use of mercury has largely been replaced by

silver in this process. In making felt hats, however, the felt is dipped into a preservative solution of nitrate of mercury, and subsequently in the process of hat pressing the mercury is volatilized and may be inhaled by the workmen or women.

Mrs. Lindon W. Bates, in a report made for the Women's Welfare Department of the National Civic Federation of New York, studied 102 cases of chronic mercurial poisoning. The fumes of the metal give rise to loosening of the teeth, ulcers of the mouth, diseases of the jaw bones, anemia, weakness and serious digestive disturbances. In extreme cases tremors and dementia may occur, as above cited. In a powder works in which fulminate of mercury ($\text{Hg}_2 \text{CNO}$) is prepared, I have lately seen a number of cases of superficial ulceration of the fingers and arms of the workmen, due to the corrosive action of the mercury powder upon the skin. Mercury poisoning is also common among makers of incandescent lamps.

Some time ago a man came to my Clinic showing a perforating ulcer between the two nasal cavities, large enough to admit the forefinger, which was the result of chronic acid chronic poisoning. He had also suffered from double vision, nausea, vomiting and difficulty in fixing the attention. On his hands were round depressed scars of old ulcers or "chrome holes," as the workmen term them. The patient, who was a chemist, had found chromic acid in the abundant nasal mucus and in his urine. There were forty workmen employed in the chrome works with this patient, all but four of whom had chronic inflammation in the nose, and half of them had perforation of the nasal septum. A boy employed in the works had recently died in a sanitarium having violent vomiting and a yellow skin, the results of chrome poisoning.

Phosphorus poisoning acquired in the manufacture of matches, where white phosphorus is used, has been the subject of an admirable study by Dr. John B. Andrews. The result of this poison, although the cases are numerically few, as compared with those of poisoning in many trades, are more disfiguring than those of any other substance, for the phosphorus fumes entering the mouth cause decay of the teeth, and rapidly progressive ulceration and destruction of the jaw bones, which must be removed, in whole or in part, to save the victim's life. Dr. Andrews found records of forty cases of necrosis of the jaws in a single factory, "of which fifteen resulted in the loss of one or both jaws and several cases resulted in death." In another small factory were records of twenty-one cases, six of which developed in a single year. Fortunately the next Congressional legislation

will in future abolish this hazard by taxing the use of white phosphorus out of existence.

Wood alcohol, often used as a solvent in varnish, if inhaled in concentrated form, gives rise to acute poisoning, causing permanent blindness and grave disturbances of the circulation which may occasion death by paralysis of the heart. A number of fatal cases have occurred in New York City, and recently two men who went down into a large beer vat in a brewery in Buffalo, to varnish it, were overcome by the vapor of wood alcohol, with the result that one died and the other became permanently blind.

Professor Baskerville of the College of the city of New York, told me lately that he has in press a study of industrial wood alcohol poisoning in which he has collected from the literature upwards of 1,000 cases.

Brass founder's ague is a fairly common industrial disease, and is at present being made the subject of an intensive study by the Committee on Occupational Diseases of the New York Branch of the American Association for Labor Legislation.

The making of pottery offers many hazards to the workmen. Those employed in mixing the damp clay suffer from bronchitis and joint pains. Those employed in applying the glaze may acquire lead poisoning, and the grinders and polishers inhale dust which may contain silica, alumina, charcoal and flint which are highly irritant to the respiratory mucous membranes, giving rise to chronic bronchitis and pneumokoniosis. Such victims often subsequently acquire pulmonary tuberculosis, which is graphically called "potter's rot" among them.

One of the most interesting of the industrial diseases due to environment is largely increasing. I refer to the compressed air illness. Originally confined to tunnel workers, it is now also met with among those employed in sinking deep caissons for the foundations of bridge piers, sky-scrapers, etc.

A member of my staff, Dr. Edward L. Keays, has published the most exhaustive report extant upon this subject, comprising the results of his experience while employed as physician to the tubes of the Pennsylvania Railroad under the East River in New York City. Among the 10,000 workmen employed, he studied 3,692 cases, twenty of which were fatal.

In my medical clinic in Bellevue Hospital and the Cornell Medical College Dispensary, so largely frequented by laborers and artisans, a special study of the industrial diseases has been conducted for several years and a great variety is met with, from the neurasthenia of the garment maker to the chronic pulmonary diseases of those employed in dusty trades, the thoracic and other deformities of faulty positions while at work,

the chronic nephritis, arteriosclerosis and cardiac hypertrophy of the metal poisons, the skin lesions of dyers, the disorders produced by inhalation of toxic fumes, the caisson disease and many other diseases resulting in more or less serious disability and sometimes in death.

A scientific classification of the industrial or occupational diseases becomes a necessity at the outset of their study, yet such classification presents considerable difficulty owing to the vagueness of existing nomenclature, the over-lapping of disease hazards in the different industries and the subdivisions of labor in the individual industry. This is illustrated in the above example of the pottery trade, where the hazard may be due to lead, to dust inhalation, or the environment of exposure to damp and cold. Again, in the felt hat industry, there are about twenty different occupations in the employment, in only two or three of which mercury constitutes the hazard. Obviously, to class a man's occupation as "hatter" means very little from the point of view of an industrial disease, for he may either sell hats over a bargain counter, make straw hats, in which there is no special hazard, or be a "coner" or "presser" of felt and die from mercury poisoning. It is, therefore, very necessary in reporting occupational diseases to give exact detail as to the particular subdivision under the occupation. In a complete study of this subject it is desirable to have a general classification under three major headings, comprising, namely, (1) the harmful occupation, (2) the harmful substance or harmful environment, and (3) the disease produced. I see no advantage in attempting to draw a rigid distinction between an "industrial" and an "occupational" disease as is sometimes done. The primary meaning of the word industrial is "diligence." One speaks of the lead "industry," rather than lead "occupation," but of the "occupation" of painter, etc. All industrial diseases are occupational, but the reverse is less apparent. One speaks of the occupation of telegrapher giving telegrapher's cramp rather than of the industry of telegrapher. The point is, that it is futile to construct artificial boundaries where so many trades, industries or occupations are ill defined. It is of much more value to adopt a uniform nomenclature and classification so that statistics gathered in one state may be compared at a glance with those from another. The National Census Bureau in conjunction with a Committee of the American Medical Association is at work at present upon this problem, which is far more intricate than might at first thought be supposed. For example, to refer again to the illustration of "hatter." Not only may the workman be employed in making hats of many materials, but as a

maker of felt hats he may be blocker, blower, pouncer, flanger, curler, shearer, stiffener, singer, trimmer, coner, dyer, dryer, feeder, hardener, mixer, welter, or finisher! The solution of the problem should be met as follows: By stating the general name of the occupation accurately, as, for example, "felt hat maker," and in parenthesis the specialized work under the general occupation, as "coner," together with the hazardous substance used, which in this instance is mercury. Thus those unfamiliar with the subject may easily learn the special hazards of particular work and be on the lookout for them. This has been done to some extent by Sir Thomas Oliver and in the classification which I furnished the New York State Labor Bureau for publication in the booklet of information on the occupational diseases issued to physicians on request. One more example under this system would read as follows:

1. Occupation: potter.
2. Specialized work: polisher.
3. Injurious substances: silica, flint, charcoal and lead dust.
4. Disease: chronic bronchitis, asthma, fibroid phthisis, lead neuritis or palsy, arteriosclerosis, interstitial nephritis.

I have emphasized this matter because incomplete classification is puzzling and may be useless. For example, in one of the Census Bulletins of 1910 a list of 101 occupations is given by name in which there may be disease hazard, but what the disease may be is not always apparent. For instance, in this list the caisson disease (although required for notification under the several state laws), is not mentioned, but the making of neckties is stated, and I have thus far been unable to find wherein the special hazard consists for this trade.

To facilitate the collection and grouping of data regarding industrial diseases I make use, in my Clinic, of special history blanks which are quickly filled up.

Whatever classification is used, it should be both comprehensive and elastic, for new disease hazards are constantly arising with the rapid advances in manufacturing industries and all kinds of material employments. Thus the handling of ferrosilicon and smelting of vanadium as well as cyanid processes, all recently used in the steel industry, have furnished serious and sometimes fatal instances of poisoning. A friend who is occupied with wireless telegraphy and telephoning invention told me that among employees using high frequency electric currents who are constantly exposed to ozone inhalations, the bronchial irritation has proved so extreme that special ventilation appli-

ances have been found necessary to mitigate the risk.

In conclusion I submit the following general classification as a frame-work under which the occupational disease hazards may be placed in detail as occasion arises:

GENERAL CLASSIFICATION OF OCCUPATIONAL DISEASES AND HARMFUL SUBSTANCES.

A. Harmful Substances—

1. Toxic metals and their compounds.
2. Toxic gases, vapors and fumes.
3. Toxic fluids (acids, alkalies, dyes, etc.)
4. Irritant dusts and fibres.
 - (a) Insoluble inorganic dusts.
 - (b) Soluble inorganic dusts.
 - (c) Organic dusts and fibres.
5. Organic germs (anthrax, glanders, etc.)
6. Miscellaneous irritants (anilin, tar, fats, etc.)

B. Harmful Environments—

1. Air compression, rarefaction and concussion.
2. Excessive humidity.
3. Excessive heat and cold.
4. Excessive light (electric, X-ray, etc.)

C. Occupational Injuries—

(Medical)

1. Injuries to nerves, muscles and bones.
(Strain, fatigue, cramp, faulty positions, "occupational neuroses," blows, vibrations, pressure, etc.)
2. Injuries to the eyes.
3. Injuries to the ears.
4. Injuries to the nose, throat and mouth.
5. Injuries to the skin.

Occupational Diseases of the

1. Blood.
2. Circulatory system.
3. Respiratory system.
4. Nervous system.
5. Digestive system.
6. Muscular system and bones.
7. Cutaneous system.
8. Urinary system.
9. Special sense organs.
10. Associated diseases, tuberculosis, etc.

In order to promote interest in the study of the most important subject of the occupational diseases, I would suggest the formation in the larger cities of committees of those whose interests meet on at least the common ground of statistics. I may be permitted to refer to the personnel of such a committee which I organized two years ago in New York City, and which was subsequently adopted by the local branch of the American Association for Labor Legislation as one of its special committees. It comprises a professor of chemistry, an insurance actuary, an expert statistician, representatives of the American Association for Labor Legislation of the State Labor Bureau and State Bureau of Factory Inspection, a professor of economics, a sociologist and several physicians chosen for their special interest in tuberculosis, the nomenclature and classification of disease, and the clinical aspects of the occupational diseases. This, I believe, forms an ideal basis of organization for study of the subject, and our committee working in close co-operation with the State authorities has in the short time since its organization, done much educational and reformatory work.

A STUDY OF THIRTY-NINE CASES AS REGARDS THE INTESTINAL LENGTH AND NUTRITION. L. T. Swaim, Cambridge, Mass., concludes: 1. Ptosis is present probably in many more cases than we realize, 9 out of 29.

2. The size of the stomach varies enormously and the tubular stretched stomach is present in most of the cases of ptosis—6 out of 9—and that the lesser curvature can be greatly stretched down, this series shows.

3. The small intestines vary greatly in length, 10 ft. 6 in. to 25 ft. 10 in., averaging 19 ft. 3 in., the length having only slight effect on the nutrition, with a tendency to more fat the longer the intestine and vice versa.

4. The large intestines vary also, averaging 5 ft. 3 in., extremes 3 ft. 8 in. to 8 ft. 5 in.

When the stomach is low the large intestine is apt to be longer and the cecum large and pendulous, the greatest length being in the transverse colon and sigmoid.

5. The total average length of the entire intestines is 24 ft. 6 in.

6. A rather significant fact is that not only the hollow viscera are displaced, but even more often the solid, such as the liver, which was below the costal border in 20 cases.—*Boston Medical and Surgical Journal*, August 29, 1912.

Open Air Schools as a Factor in the Prevention of Disease

BY JOHN AIKMAN, M.D.

Rochester, N. Y.

Attending Physician at Rochester Open Air School

[Illustrations through the courtesy of the Rochester Public Health Association.]

IT is quite remarkable that such a wonderful agent as the Open Air School has proved itself to be was never introduced until about eight years ago, and that none were opened in this country until 1908. For years we had known of the tubercle bacilli and of the fact that lowered resistance gave the best chance for this enemy of man to carry out its terrible work. Still we would crowd children from homes where the disease existed into poorly ventilated school rooms, under conditions that made it very difficult to combat the disease to which they were especially susceptible. There were also in these school-rooms, poorly nourished and anaemic children, those with tubercular glands, tonsils, adenoids and many other conditions that made them susceptible to infection. These children were unable to keep up with their grades, would lose several days each term, and were ready victims of every contagious disease that found its way into the school.

In 1904 some of the school workers in Germany thought of the happy plan of teaching these children in the open air. People had awakened to the fact that fresh air, even at a low temperature, was of the greatest need to the growing child. All methods of ventilation had been found to be imperfect and, certainly, none offered a suitable substitute for out-of-doors living. The idea at once became popular and has spread with great rapidity.

The children that have been treated in such schools are not, strictly speaking, hospital cases, and are not ill enough to require treatment at home. They are simply predisposed to disease, and the greatest work of the Open Air School is to increase resistance and thereby avoid serious infection. The parents will not consent to have their children away all the time and many parents, considering, strange to say, the education of the child of more importance than the health, will not consent to removal from school. The Open Air School stands between the school and the hospital, offering a happy solution to the problem. A hospital for the care of such cases would be much more expensive and it would certainly be impossible for a city to treat such cases for months, sometimes a year or two, as is frequently required, before the proper physical standard is reached.

Although much has been said and written in regard to Open Air Schools, it might be well to describe, briefly, a typical school,

because it seems that few physicians have had the time to visit the schools and to look into the advantages offered, at least the comparatively few physicians who refer cases to the school would so indicate. The school at Rochester, which was one of the first to be opened, has nearly all the essential features, and will do very well for descriptive purposes. We have, at present, on one of the playgrounds of the city, near No. 14 School, a wooden tent such as is used in the treatment of tuberculosis, which allows free admission of fresh air and is not heated. It simply supplies pro-



AT WORK IN GARDEN.

tection from wind, rain and snow. Near by, in the school building proper, is a large room used for kitchen and dining room. This, of course, is heated, and is used only at meal time. In this building is also a bath room where each week the children are given a thorough bath and inspection by the visiting nurse. All the time possible is spent in the open air and the children go outside the tent for study and exercise when the weather permits. Two teachers and a trained dietitian have charge of the school.

The equipment is inexpensive and the running expenses of the school are quite moderate. The daily food for the children costs only 14 cents per capita. There are at present thirty-five pupils, but as the Board of Education is considering the erection of a larger building with strictly modern equipment at the Cobb's Hill Park, places for many more will soon be provided. With this new school on the outskirts of the city, it is believed that even better results will be obtained.

The object of the school, primarily, is to prevent the development of tuberculosis in predisposed children. With this in view, the cases selected for the school include children from homes where the disease exists, together with cases of anaemia, malnutrition, tubercular glands and underdevelopment. Cardiac, post-operative and cases convalescing from bronchitis, etc., have



DINING ROOM

also been admitted. The most important point in regard to the class taken is that no case that has pulmonary tuberculosis is admitted to the school, even though the disease is incipient. Fortunately there is an Open Air School for these cases at the County Hospital for Tuberculosis (Iola).

Each applicant for admission is examined by Dr. Whipple of the Rochester Public Health Association, and, if the child is in need of such care and no tuberculosis can be detected, he is admitted. However, if tuberculosis develops, the child is immediately transferred to the school for tubercular children at Iola.

Owing to the fact that we have, at present, but one school room, only children between 7 and 14 years of age are received. In regard to the children, I might say here that they so enjoy the school that they are willing to continue through their vacations and, in some cities, have even attended on Saturdays and Sundays. It is easy to imagine that this attitude on the part of the children has much to do with the excellent results obtained.

In winter the children are provided with Eskimo suits, gloves and felt boots. The Eskimo suits are made of woolen blankets so cut and fitted that they will allow free motion and at the same time keep the children warm. The hoods attached to the blanket suits provide protection for the heads.



REST PERIOD.

Following is the routine observed at the school:

- 8:40- 9:00 A. M.—Prepare for breakfast.
 - 9:00- 9:30 A. M.—Breakfast.
 - 9:30-10:30 A. M.—Lessons.
 - 10:30-10:50 A. M.—Gymnastics and games.
 - 10:50-11:00 A. M.—Milk.
 - 11:00-11:45 A. M.—Lessons.
 - 11:45-12:00 M.—Prepare for dinner.
 - 12:00-12:40 P. M.—Dinner.
 - 12:40- 2:00 P. M.—Rest in reclining chairs.
 - 2:00- 2:10 P. M.—Fold blankets and chairs.
 - 2:10- 2:20 P. M.—Breathing and rhythm exercises.
 - 2:20- 2:45 P. M.—Playground.
 - 2:45- 3:15 P. M.—Lessons.
 - 3:15- 3:30 P. M.—Prepare for dismissal.
 - 3:30- P. M.—Milk and crackers, soup or cocoa.
- Dismissal.

The order of exercises is followed, except in cases of cardiac disease, when the physical exertions are limited as indicated by the condition present.

The education of the child is considered of secondary importance to his physical condition, and the studies are made as



RECREATION.

practical and interesting as possible. It is rather surprising to note "the fact that children can do the same amount of work in much less, sometimes in half the time, with increased energy and alertness." Most of them keep up with their regular grades. They are taught practical hygiene and soon develop habits of cleanliness, politeness and good nature owing to the fact that the school is quite like one large family.

The food given at the school has much to do with the good results obtained, and, with what the children receive at home, gives a very nourishing diet. Estimating that the growing child requires 80 calories per kilogram, the boys of this school require 2000 and the girls 1600 calories per day. At the school they receive about 1151 calories of food per capita, so it is seen that over one-half of the total food required is supplied. The food they receive at home more than makes up the balance.

The breakfast at 9 A. M. consists of a cereal with sugar, cream and a glass of milk. At 11 o'clock each child receives a glass of

milk or a cup of cocoa. Dinner is served at 12:30 and consists of meat, or a meat substitute, potatoes, one other vegetable, bread, butter, milk and a single dessert or they are given a soup which is high in nutritive value, bread, butter and pudding. The lunch at 3:30 consists of cocoa and crackers or bread and milk. Sometimes sandwiches or milk toast are added.

The physical exercises are of such a character as to develop the chest, increasing expansion, and also to remedy spinal curvatures. Of great interest and value is the out-of-door singing. This has been found to have a beneficial effect on the chest expansion, circulation of the blood, metabolism and digestion. The effects noted both here and in other schools prove open air singing to be a valuable exercise.

In the spring and summer the children have a garden where flowers and vegetables are grown and where the children make nature studies.

The exercises in the school have a marked effect on the mental condition of the child and there is soon shown an increased alertness and attention, and greatly improved personal appearance, especially marked in children from the poorer sections. We are told by the visiting nurses that the children carry home the ideas of cleanliness and hygiene and that many times a marked change is noted in the homes due to this influence. The best friends of the school are the mothers and it is quite the usual thing to have them, at the end of the term, ask to have their children retained in the school and not returned to the regular grades.

The physician of the school makes weekly visits, and every child is examined once a month, records being kept of height, weight, chest expansion, haemoglobin, pulse and temperature. The heart, chest, throat and glands are also examined at the same time. By examining but eight or nine children at a visit it is possible to cover the whole school in a month, give each child sufficient time and not to over-tax the examiner.

By frequent examinations and accurate records it is possible to detect disease at an earlier stage than would be possible in the regular schools. In this way the few cases that develop tuberculosis can be at once removed to the hospital while the disease is incipient. The early detection is, obviously, very beneficial to the child and at the same time removes a source of danger from the school. Any failure to gain weight is at once investigated, and, if nothing is detected on physical examination, inquiries are made at the home as to how the hours outside of school are spent. This, as a rule, accounts for the trouble.

The results obtained show at once the value of this method of treatment.

First, in relation to tuberculosis: As stated above, we try to secure children before the tubercle bacilli have gained a foothold, in the "pre-tubercular stage." Many cases are obtained from homes where tuberculosis exists and always an effort is made to have the tubercular members of the family removed to the hospital and, if this is not accomplished, a nurse makes regular visits to the home and instructs the family in regard to protective measures. Cases that are run down and predisposed to the disease are also taken, especially those cases of malnutrition, anaemia, round shoulders and the like. Nearly all these cases gain in weight, and during the last term but one has developed the disease. The whole order of the school, with the fresh air, sunlight, food, rest, breathing and other exercises, singing, etc., unite to give very good results. In the principal's report from September, 1912, to February, 1913, we find that forty-one children in all were cared for, eighteen boys and twenty-three girls. All except one, the case which developed tuberculosis, show gains in weight. The greatest gain was $10\frac{1}{4}$ and the least $1\frac{1}{4}$ (in seventeen days); the average gain was $3\frac{5}{8}$ lbs. Nearly every case shows a gain in chest expansion and improved mental condition. Thirty-seven children show an increase in haemoglobin, four remained stationary and none lost. They all look more healthy and the improvement in every way is marked. From the fact that, owing to the limited accommodations, only cases greatly in need of open air treatment have been received, and that eight out of thirty-five were discharged as cured on February 1st, 1913, to return to their regular schools, it can easily be seen that the right results are obtained.

In regard to other diseases: The class of children admitted are more susceptible to any infection than the average child, and, by staying in the open air, where communication of diseases is more difficult than in the closed school room, and also by increasing the general resistance of the children, epidemics of contagious diseases are much less apt to occur. This is also aided by recording temperatures, keeping the children clean and by exclusion of any suspicious cases.

It has often been noticed that the children in open air schools are quite free from colds which also lessens the likelihood of development of throat, ear and lung conditions. All cases of enlarged tonsils and adenoids are operated upon before admission, or as soon after admission as possible, and the teeth are examined and treated, thus giving the child a better chance to profit by the open air study.

Other diseased conditions have also been greatly improved, including anaemia, malnutrition, tubercular adenitis and nervous troubles. Cases of cardiac disease have been admitted and, by regulating the physical exercises and giving plenty of rest, good results have been obtained. Any condition in childhood that requires a general upbuilding of the physical condition, will show improvement in the Open Air School.

There is no doubt in the mind of the writer that a large number of the children who have attended the school this year would have become public charges, had they not had advantages here offered. So we may say that, out of the eight children discharged February 1st, practically all were saved to the community.

There are 20,000,000 children attending the public schools of the United States, and it is estimated that 600,000 are in urgent need of open air instruction. At present there are 12 public open air schools in New York City with 526 pupils and forty-one schools in the rest of the United States, in all 1,755, which is very low considering the vast number of children in our cities in need of just such treatment. Such schools are rapidly increasing and are now recognized by all students of public health as being indispensable. Knopf of New York makes the following broad statement. "If we really mean to wipe out tuberculosis from among the coming generation, Open Air Schools and open air instruction should be the rule, indoor schools and indoor instruction the exception."

The schools must have the support of the medical profession, and what is most needed is for the general practitioner and school physician to bear in mind that such institutions exist, and refer children to them; and not only refer, but advise and insist that such a course is necessary.

(880 Monroe Avenue.)

May 1, 1913.

ABERHALDEN'S SERO-DIAGNOSIS OF PREGNANCY. Henry Schwartz of St. Louis, *Interstate Med. Jour.*, March, 1913, reviews the literature and explains the technic. In over 300 cases reported, the plus minus error is said to be zero. Positive reactions are found from about the sixth week to 10-15 days after the termination of pregnancy, whether at term or prematurely and irrespective of lactation.

MENSTRUATION IN INFANT. Wm. F. Smith of Calexico, Calif., *Southern Calif. Pract.*, March, 1912, reports a case, menstruating on the 7th and 35th days after birth, the first menstruation being accompanied with milk in the breasts.

Benefits to be Derived From Regular Medical Inspection of Our Schools

BY G. M. CASE, M.D.
Elmira, N. Y.

[Read at the March, 1913, meeting of the Elmira Academy of Medicine]

THE authoritative school board, through legislative action, compels all children, between certain ages, to regularly attend school, and makes the term to last *practically* three-quarters of the year. Unless this is complied with the "delinquent" officer must know the reason. On the face of it this seems a just and commendatory measure, for, what is of more importance to the rising generation than a school education. But if the State had gone a step farther and made medical inspection of our schools compulsory, how much better it would have been for all concerned; for we medical men (and for that matter) most teachers know, that quite a large per cent. of the children in our schools need to have their bodies *treated* far more than to have their minds *trained*.

In fact, it is impossible to make much headway in training such children's minds until their physical condition is bettered. Every teacher encounters such a class of school children. They cannot make their grades, always behind in their studies, cannot apply themselves, and are, many times, ostracised and designated stupid. Nine times out of ten these children need medical attention. Perhaps their eyes are wrong, or they may be suffering from impaired hearing, or their mental faculties are dulled from obstructions in the upper air passages. Also, many of this class are improperly nourished, anaemic; may be suffering from digestive disorders or even incipient tuberculosis or mild chorea, that has escaped the attention of parent, or even if the parents *do know* the child is half sick they send them to school to get them out of the way, or from fear of the "delinquent officer."

There are many sound reasons why, in this day and age, there should be "medical inspection in our schools." Some are so apparent that it is useless to mention them. The more prominent are, viz: First, that which is embodied in what, for convenience, we call "Preventative Medicine." Medical examination of the school children would bring to light many physical abnormalities which, if corrected, would control the whole child-life, and to some extent the future destiny of the community at large, for healthy children are quite apt to grow up to be strong, and useful men and women.

In a recent paper before this "academy" I made the statement (based upon statistics and experience) that at least 75 per

cent. of cases of deafness are curable; or, in other words, are "preventable" if taken at the proper time. This fact is worth considering from an economic point of view. I think you medical men will subscribe to the truth of the statement, when I say that at least one in five of school children will be found to be mouth-breathers, because of nasal disorders or large tonsils or adenoid growths. As these conditions are known to be the direct contributing cause of deafness, discharging ears, and predisposed to nervous trouble, and through infection to rheumatism and even tuberculosis, it brings immense responsibilities upon the Board of Education and the medical fraternity alike.

The public have become fairly well informed as to the importance of regular examination of the eye-sight of the school children, and in our city schools an attempt has been made to bring this about. Each teacher is supposed to be supplied with a "Snellen" chart (but generally only one chart in whole school) and each pupil's visual power is supposed to be obtained and recorded, and if distinctly below the normal, the parents of the child or the sanitary officer is notified that an oculist should be consulted. Provision is made in our own city, as you all know, whereby the poor may have the services of the oculist gratuitously, a very nominal charge made for glasses furnished, which are paid for by the Board of Education.

This is very commendable, as far as it goes, but the experience of the oculists in our city shows that only a very small per cent. of these defective eye-sight children ever reach them.

It is a conservative estimate that one in three children *have trouble*, either with their eyes, nose or throat that need attention; and it is the conviction of teachers, and the medical profession, that *something* should be done to bring this about, if we hope to obtain the best possible conditions, physically and mentally, for the present rising generation. The above assertions that I have made might give you the impression that I believed that all that is required is medical supervision of the schools by a specialist—*far from it*. The best benefits can only be accomplished by union of the two forces, viz: There should be an internist and specialist for each school. Of the two I am convinced that the physician's duties are of equal if not more importance than the specialist, certainly more diversified. He should guard the school child from the evil effects of a good, *but many times*, abused compulsory educational law. In the discussion of Dr. Nobles' paper at our last meeting I was impressed with the fact that, beyond doubt, many children are kept, from fear of the authorities, in school who from physical or nervous defects have no right to be there and are receiving

little but physical injury and mental discouragement by their school life. Others, classed as precocious children, are pushed ahead, making grades in an incredulous short time, simply because the teacher is over-zealous and the parents are desirous of demonstrating the extraordinary ability of their child, and from indoor confinement and over-study are driven into inevitable nervous ruin, and later mental incapacity. This cramming method, so much in vogue in our schools, at the expense of the pupils health, should be discouraged, and the state should be bound to take cognizance of the physical welfare of its school children first, last and all the time.

The second reason for medical inspection of our schools is found in the extension of our school system.

In former years the schools were widely scattered and irregularly attended, the terms were short, and there seemed no special need of hygienic attention. A half century ago we were a set of rural communities, now we are an urban nation, over 35 per cent. live in cities, and many of the residents of the country send their children to the city schools to be educated. This fact has rendered essential greater attention to water supply, problems of light and air in public school buildings, the isolation of contagious diseases, and a thousand other matters of greater or less importance, but apparently less needed in a rural community.

Incidentally I might mention it is a sad fact that the inhabitants of the country, school *authoratives* or otherwise, wilfully ignore, or are ignorant of the simplest sanitary and hygienic measures.

It is right here in these country schools that the health of the children is shamefully neglected. Fresh air is so free and plentiful that its value is not realized, and it is safe to say that the majority of all inhabitants, intelligent or otherwise, sleep in stuffy bedrooms and live in ill-ventilated rooms, thereby inviting catarrhal troubles and various other ailments. Adenoid growths and hypertrophied tonsils are alarmingly common in our rural districts. The *schools are full of them*," is what a sanitary inspector told me the other day. She brought one of them to me for operation the other day, and said that there were three more in the same family that ought to be operated on, but the parents would not consent to bringing only the one that is getting deaf. They said the others would outgrow it. What folly, because the damage is done long before the growths atrophy. How to arouse the apathy of the public on a "good-health crusade" is one of the difficulties of the day. It never will be done until the state makes it compulsory, as vaccination, school attendance, etc. Says Dr. Wm. H. Allen, Secretary of the Bureau of Municipal Research, "The obligation between the State and the child is a

reciprocal one, and when the State for its own protection compels a child to go to school, it pledges itself not to injure itself by injuring the child." Again, to quote from the British Board of Education: "Medical inspection is founded on the close connection which exists between the physical and mental conditions of the children, *and the whole of education*. It seeks to secure ultimately, *for every child, normal or defective*, conditions of life compatible with that *full and effective* development of its organic functions, its special senses and its mental powers, which constitute a true education."

That this medical inspection of our schools has come to stay is conclusively shown by the below statements. Twelve states have taken legislative action, either compulsory or permissive. Of these the best progress has been made in the North Atlantic and Western division of States, where 60 per cent. of the cities have taken it up. The poorest showing is made in the Southern States, where only about 20 to 30 per cent. of the cities have medical inspection of their schools. In 75 per cent. of the cities the work is prosecuted under the Board of Education.

Of 758 cities tabulated, 337 have systems of medical inspection. 301 have inspection for the detection of contagious diseases. 167 cities have physical examination of school children, most of them not only when they enter, but at stated periods. In 187 cities vision and hearing tests are conducted by the doctor. In 399 cities vision and hearing tests are conducted by teachers. There are 1194 school physicians employed as permanent members of educational forces. 371 nurses are employed in 76 cities. 48 cities have school dentists. About 25 cities are supporting open air schools, and according to Dr. Straw of New Hampshire, from whose article the above statistics are taken, no failure has been recorded. He says the children gain in weight, work less, play more, and progress faster than those in ordinary schools. He says 97 cities give special care and instruction to all school children found predisposed to or are already infected with tuberculosis and provide out-door schools for them.

New York City last year made over and equipped twenty school rooms, in regular buildings, for the better care of the sick and well school children, besides establishing a number of independent schools for out-door instruction.

That progress is being made in endeavoring to better the physical as well as the mental condition of our school children is in evidence from all sources. Only a few years ago medical inspection meant a hurried looking over of school children to discover measles, scarlet fever, diphtheria, etc. Now most of the cities

look more for defective vision or anaemia, incipient tuberculosis, etc. Not long since adenoid growths were almost unheard of by school teachers. Now 171 cities make examinations for adenoids and hypertrophied or diseased tonsils, for they are known to be a more serious menace to a healthy development and school progress than most anything else.

It is apparent from all standpoints that medical inspection of our schools is a wise and much needed condition, and is well worth our serious consideration. But how to bring it about is the perplexing problem. That the teachers should be required to make the examinations is an injustice for two main reasons; first, it adds to their already overburdensome responsibilities; and, second, since the tests, to be of any real value, require technical skill. In many of the cities a qualified school nurse is employed to supplement the work of the physician, and has been found a most excellent expedient.

To properly carry out school inspection in all of its many details requires a broad and practical knowledge of hygiene, which includes lighting, heating, ventilation, drainage, disinfection, as well as judgment of the physical endurance of the child from a medical standpoint. Specialists must examine into the visual power of the child and also determine whether deafness exists, and its cause. If the child is backward in his or her studies, it certainly should receive especial attention from both specialist and physician. Both Philadelphia and Chicago have a private pathological clinic for such children, and its duty is to inquire into nervous difficulties, hereditary troubles or other deep-seated defects. The following is a list of questions and answers indicative of the extent and purpose of the work of medical inspection of schools. These have been adopted as a standard by some cities:

1. Who and what should be physically examined? Answer. All children, normal students, teachers, janitor, buildings, grounds in all school districts, public, parochial, private, rural and urban.
2. How often? Answer. At least once a year.
3. How many children need treatment? Answer. Seven out of ten; three out of ten for eyes; two out of ten for breathing troubles; seven out of ten for bad teeth.
4. What is the penalty for physical defect? Answer. Retardation, discouragement, dropping out of school, annual waste estimated up into the millions.
5. Does examination lead to treatment? Answer. Yes, in nine cases out of ten, if the parents understand properly.
6. How should medical inspection be administered? Answer. As now only about one-quarter of the cities are under the Board

of Health, and three-quarters are under the Board of Education, it would seem that the latter should control it.

7. Should the work be done by the principals and teachers, properly qualified nurses or by physician? Answer. The most excellent expedient has been to employ nurses to supplement the work of the physician. The principals of the schools with their corps of teachers are more than willing to lend their assistance and their usefulness can hardly be estimated as an aid to this work.

RADICAL REMOVAL OF OESOPHAGEAL CANCER. Willy Meyer, at the recent meeting of the Am. Gastro-enterologic Assn., stated that two operations, thus far successful, had been reported during the year, depending upon the use of negative pressure apparatus. Bloodgood stated that a third case had recently been reported.

DANGER OF REMOVAL OF PIECE OF CANCER FOR DIAGNOSIS. Bloodgood of Baltimore, at the recent meeting of the Am. Gastro-enterologic Assn., cited the well known fact that removal of a section of cancer from the tongue for examination, was almost always followed by metastasis whereas cases radically operated, even at a later stage, had a fairly good prognosis. He pointed the moral as applied to the use of forceps through the oesophagus and with regard to cancer generally.

RURAL ORIGIN OF TYPHOID. The *Jour. of the A. M. A.*, April 12, 1913, comments editorially on Boldman's study of conditions in New York City, and his conclusion that over half the cases are due to out-of-town infection. In 1907, we stated in a discussion at the A. M. A. meeting a similar conclusion for Buffalo, this conclusion being, apparently, unanimously disapproved. In 1908, in Paris, where a separate supply of potable water is piped from carefully guarded springs, typhoid is almost unknown except as the cases are brought in from the suburbs or as the infection is brought in from without by residents.

CALCULUS OF ANTRUM OF HIGHMORE, Norman B. Carson of St. Louis, *Interstate Med. Jour.*, March, 1913, reports a case with swelling of the cheek and exophthalmus in a man aged 67. A squamous epithelioma was removed and also a black, shell-like calculus, $\frac{1}{8}$ inch in diameter, the interior of the calculus being light yellowish and coarsely granular. It consisted almost entirely of calcium phosphate.

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YEARLY VOLUME 69

AUGUST, 1913

No. 1

The child is father to the man. Let us be sure that the future adult has a healthy, moral and intelligent parent.

The Congress on School Hygiene

We welcome to our city this body of distinguished philanthropists and educators and bespeak the interest in the cause of the medical profession generally, not only in attendance at the meetings but in permanent support of the various lines of activity which the Congress will initiate or stimulate. It would be so easy to anticipate the general trend of the papers and to recapitulate methods and aspirations already familiar to our readers, that we forbear to do so. Rather let us offer two suggestions of conservatism, by no means in a spirit of opposition: Do not let the child become too much impressed with his own importance, especially to the extent of feeling that he is the main object of adult labor and provision and that he is himself free from the responsibility of industry. And, in utilizing to the full, the School as an institution where practically the entire child population can be reached and benefited, do not forget the paramount importance of the home, nor let the school usurp the responsibilities of parenthood.

Protect the Little Boy

We commend to individuals and societies especially interested in conserving the morals of the nation, a factor often overlooked—the innocence and purity of the little boy. We are not attempting to upset the world-wide and world-old notion that

sexual morality and respectability are feminine attributes, nor the converse proposition that sexual obloquy attaches particularly to that sex. We do not believe, on abstract principle, that such should be the case, but we fear that any tendency to the practical establishment of equality of the sexes in this respect will tend to level downward, not upward.

But, in everything but anatomy and social potentialities, a little child is sexless. We can see no logic in the explicit or tacit contention that the boy's innocence, virtue and purity, are different from the same attributes of the girl!

Some years ago, half a dozen boys and young men, 18 to 21 years old, of supposedly good families, at least the leading families of a small town, cajoled a little girl of five, of a similar family, into accompanying them to the outskirts of the town. In a deserted house they stripped her and subjected her to all sorts of indignities. What was the result? Some of our readers will answer legal punishment and imprisonment, others tarring and feathering, others, thinking of lower latitudes and, possibly of differences of race, will suggest a hunt with blood hounds and burning at the stake. These are natural suggestions, but they are wrong, because we deliberately mis-stated the case. The truth is that it was a band of girls and young ladies who victimized a little boy. And the result was that the parents were highly indignant, that most of the people laughed at the episode, that some of the girls were ashamed of what they had done and that the others lost more or less in the esteem of their neighbors.

We don't know the future career of this boy, but we do know that two of the worst rakes of our acquaintance were seduced when they were about fourteen by mature women responsible for their intellectual and moral training. These two boys have collected the damages due them a hundred times over, but from girls in no way responsible personally.

If society and the law can see no abstract principle which demands the protection of childish innocence, regardless of sex, there is, nevertheless, the reflex action on feminine virtue to be considered.

Moving Pictures

We shall have nothing to say as to the possibilities and actual accomplishments of the cinetograph in science, but venture to present an opinion as to the sociologic influence of ordinary, popular shows, rather at variance with the usual condemnations.

It is true that a great deal of time and money is spent at these shows, and by persons who cannot, apparently, afford it. But

we live in an age when active efforts are made against an expenditure of half the income of a poor family for food, of a quarter for housing and a fifth for clothing. In other words, public sentiment, or rather public judgment, demands that everyone have education and enjoyment. On the whole, the moving picture show has solved better than any other the problem of cheap amusement. It has markedly threatened the high schedule of the regular theaters and has competed both with these and with various decidedly objectionable institutions for recreation, perhaps most of all with the cheapest directly and most expensive indirectly—loafing.

The moving picture show has been condemned as teaching immorality, using the term in a broad sense. Without pretending to a large experience, we have attended such shows in various cities covering nearly a third of the circumference of the globe and have never seen anything on the screen that would have been open to serious question on the theatric stage. It is true, however, that the imitative tendencies of children and childish adults have been stimulated by scenes of burglary, foolish antics, etc., but this potentiality of the moving pictures has been fairly well corrected by the system of censorship of films.

The mere availability of a place of retreat, more or less darkened, has led to some thefts and to more or less sexual immorality, truancy, etc. But similar charges may be made against almost everything which affords opportunity for relative release from restraint and supervision. They have been made against the bicycle, the automobile, the excursion boat, even the church and its associated activities. A considerable minority of the race cannot be trusted anywhere except in daylight, at a distance from other people and under the eye of a policeman. Instead of doing away with institutions which may possibly remove these restrictions, we believe in detecting this dependent class as soon as possible, though, of course, throwing safeguards around any particular spot of danger.

The moving picture theater has been condemned as unhygienic and as favoring the communication of disease. The same is true of almost every public gathering place and conveyance. A large part of our population is filthy and dangerous on account of its filth. At first thought it appears wise to eliminate whatever tends to bring this part of the population in contact with the decent and relatively safe part. On second thought, it is not improbable that the unwashed, who include many otherwise worthy persons, will gradually be educated by hearing others say "phew" at what must seem to them a normal atmosphere, and by being told in the newspapers that they stink. Anyhow, the moving picture show

is not much worse than a political meeting, a popular concert or a near-end street car. Of course, we believe that ventilation, safety against fire, etc., should be enforced at these as well as at all similar gatherings.

The educative value of the moving picture show deserves some consideration, in spite of the tendency of recent years to paltry pantomime. In spite of these tedious and non-educative features which are no worse than for the majority of theatric presentations, there are enough travel scenes, pantomimes in foreign settings, current reviews and representations of historic events or of historic novels and plays, to have a decided value.

Alcoholism, Tuberculosis and Venereal Diseases as Factors in Stirpiculture

We have been impressed with the frequency with which alcoholism, tuberculosis and syphilis are emphasized in the French literature as preponderating influences in determining the ultimate health and viability of the offspring. Certain observations have led us to question whether the first is so often as it is usually believed, operative in establishing a hereditary tendency to drink. Several of the strictest abstainers that we have known have, in a sense, inherited this negative tendency from parents with the opposite, positive tendency, on exactly the same principle that the children of profligate or dishonest parents, with the constant warning before them and the reiterated precepts of the other parent, become models of thrift and scrupulous adherents of truth and respecters of the rights of others. Nor do we believe that moderate drinkers often degenerate into drunkards or that occasional excessive drinkers establish characteristic lesions in their system, much less well defined hereditary physical taints. More important are the general effects of malnutrition and exposure producing no special lesion in the offspring but a generally enfeebled constitution; and the almost inevitable financial drawbacks, amounting to inadequate care of children and virtually constituting a partial orphanage. Yet we recall a really admirable man, who conducted a business with great success and who was scarcely out of the influence of alcohol for twenty years, except early in the morning, when he promptly brought himself into his habitual if not strictly normal condition. This man and his wife held the highest ethical views of propagation, and the latter was about as constantly in the stage of gestation or lactation as her husband was under the moderate influence of alcohol. The net result was two normal children, one feeble one and one markedly anaemic and below par intellectually; as well as a long row of little graves and many innocent abortions.

The extent to which tuberculosis is hereditary is still a debatable question. The disease is so common that practically no one who is a member of a large family and who knows anything about its history can fail to give what might, at least, be construed as a collateral heredity. Frank congenital tuberculosis is rare and the degree to which subsequent development of the disease should be ascribed to ante-natal but latent infection, the inheritance of a definite diathesis, or merely to subsequent familial or extra-familial infection, is still in doubt. Viewed from the practical standpoint, tuberculosis of a clinically recognizable and dangerous degree, is rather a disease of lowered resistance than analogous to the majority of germ-diseases (we say *germ* because both bacteria, protozoa and other micro-organisms are concerned) in which infection, granted the presence of the infecting organisms, depends very little on the general health and strength of the individual. While instances may be multiplied to show that a weak child, born of tuberculous parents, may by proper regimen in a different environment not only escape the disease but become vigorous, the offspring of the tuberculous is, as a rule, feeble and especially exposed to infection.

The constant struggle against alcoholism and tuberculosis is unquestionably mitigating these evils. Every case of tuberculosis prevented or cured makes for healthier offspring, for better fed, better clothed and more carefully watched children, and it actually lessens the danger of infection during periods of temporary depression of resistance such as are inevitable in any individual. We venture the prediction that tuberculosis will decrease in geometric progression and that, if present or more effective measures of control are maintained for a generation, it will become a relatively rare instead of one of the commonest diseases. Meantime, various philanthropic agencies are at work to preserve children from what were formerly almost inevitable results of alcoholism, tuberculosis and other unfavorable factors of parental origin.

The problems of syphilis are inevitably complicated with moral considerations. There still survive many who regard the prophylaxis of venereal disease as immoral. If syphilis were entirely a disease of venereal origin and if it involved only the trespassers of social law, there would be some excuse for this attitude. But, in the face of well known facts, we may boldly advocate taking every measure to prevent syphilis or any other venereal disease, with no more attention to what the recipient might be disposed to deserve than in the case of typhoid fever, which ultimately involves a violation of rules of decency along other lines, or of traumatisms to which individual carelessness

contribute. As to the methods to be followed, we have nothing to say here, except the following general heresies: Too detailed warnings to our youth as to the punishment of immorality may lead to attempts, not altogether successful, to avoid not the sin but its untoward results. There is very little hope of eradicating an institution that has existed for the last five thousand years or longer, by prohibitive legislation. The prostitute is only one factor in maintaining this institution, and there is neither justice nor common sense in persecuting her as "disorderly" simply on account of her business. Without advocating segregation in the formal sense, we believe that flies, filth and foci of immorality are much less dangerous in visible masses than when scattered. There is no use sticking our heads into the sand and imagining that we have annihilated prostitution.

Notes of the Gettysburg Anniversary

Probably there have never been gathered together so many old men as on this occasion. Accurate statistics are not available, but about 50,000 veterans, including five per cent. or less of Confederates were assembled, most of them being accommodated in tents, served with rations and given the benefits of the most modern camp hygiene. Probably half as many other visitors were present. Order was maintained by the State Constabulary, details of soldiers, regulars and national guard and much help was given by boy scouts. Dispensary and hospital services were maintained by the State Department of Health, the Red Cross Society and the Medico-chirurgical Hospital of Philadelphia, which sent an automobile ambulance and a corps of surgeons and nurses. Perhaps on account of the divided responsibility we were unable to learn the exact number of deaths and cases treated. The estimates of the former ranged from six by one of the surgeons of the State Health Department to seventeen by the veterans, based on the assumption that deaths were announced by the number of guns fired at reveille. Later reports state the number of deaths at nine. At least 250 cases of "heat prostration" were treated, but the somewhat uncharitable view was expressed that the heat was measured more appropriately by a column of alcohol than of mercury. As the youngest veteran must have been close to 65, and as there were many men in the 80's, a few in the 90's, including the sole surviving commanding general, Daniel E. Sickles; and one centenarian, Micajah Weiss, aged 110, the maximum estimate of deaths is surprisingly low. The average (census) mortality for the ages 65-74 is 58.3:1000 for those above 75, 142:1000. We

should, therefore, expect an average weekly mortality of 50—100 in such a gathering and the fatigue of travel, excitement, exposure to heat, temptation to various excesses, etc., should compensate for any ordinary seasonal fluctuation. Two of the deaths of veterans occurred in a runaway accident, otherwise all the deaths of which we could learn were of the ordinary types of sudden death in the aged. None of the casualties or medical cases were of professional interest, although four or five men were stabbed as the result of a purely figurative insult to the memory of the late President Lincoln's mother. This occurred in the village and did not involve the veterans at all.

Considering the addition of approximately 75,000 persons to a village of about 3500, there was surprisingly little suffering for food and lodging except by the fastidious and comparatively little extortion, although, in view of the small means of many of the veterans, one might have asked for some provision which would have spared their feeble steps.

No attempt was made at statistics of the number of veterans who had participated in the battle. Apparently, most of the Confederates had and, judging by impressions from many groups, a third of the Union veterans. At first thought, this seems impossible, but the following facts lend probability to the rough estimate. The average mortality of all the Union forces was 10.5 per cent. 95,358 Union soldiers participated in the three day's fight and about 85,000 would have survived the war. According to Homan's table of survivors (acknowledged to be low for selected insurance risks but probably fairly accurate for a general population for the period covered) about 25,000 would now survive if the average age had been 25 in 1865; 14,000 if the average age had been 30. It is fair to assume that there are about 20,000 survivors at present.

While Gettysburg was the bloodiest fight known to modern military history, the following official statistics are almost disappointingly small in direct mortality:

	Federal.	Confederate.
Men Engaged	95,358	75,256
Killed	3,155	2,592
Wounded	14,529	12,705
Missing or Captured.....	5,365	5,150
Total Losses	23,049	20,447
Percent of Loss	24.1	27.1
Percent of Killed and Wounded.....	18.5	20.3

We still speak of "decimated" ranks, but the reduction of even a single unit to a tenth of its original force is of rare occurrence

since the days of hand to hand conflict. We noted one regiment, already much depleted, which was reduced from 220 to 37 effective men. The charges of the Louisiana Tigers and of Pickett's men resulted in an aggregate loss (killed, wounded and missing) of about two-thirds.

Several interesting, though gruesome points, were developed in conversation regarding the significance of the term "missing." While, in long campaigns or exhausting marches, the word includes a considerable number of deserters and stragglers, all the veterans agreed that, for a battle, the "missing" were either prisoners or unidentified dead and it was stated that the number of unidentified dead in national cemeteries warranted the general statement that the official figures of "killed" should, on the average, be increased by approximately 50 per cent. The reasons for lack of identification emphasized one of the horrors of war scarcely comprehensible by one accustomed to death only as it occurs in times of peace. We know academically that rigor mortis occurs with greater rapidity when the muscles are surcharged with products of catabolism from active exercise, though we sometimes doubt the accounts of dead soldiers stiffened at the moment of death so as to retain the posture in which they happened to be. Yet so many such accounts are given regarding this and other battles that our skepticism is perhaps not justified. We also know academically that the sooner rigor mortis sets in, the sooner it terminates in decomposition and that decomposition is retarded by even incomplete embalming, protection from the sun's rays and heat. Yet it was a surprise to hear veterans speak, as a matter of course, of the bodies of the Louisiana Tigers being "black and bloated" the day after the charge. Most of the deaths in the "Wheat Field" occurred on the afternoon of July 2 and on the following day. Before Lee's retreat on the 4th was an assured fact to the Union troops, burial parties were sent out, in the evening, because of the terrible odor at a distance of half a mile or more, when there was considerable danger that flags of truce could not be seen by the enemy. It can readily be imagined, that under such circumstances, not only the disfigurement but the disinclination to search closely for marks of identification and the necessity of haste would result in a relatively large proportion of "unknown dead," even among acquaintances of the burial party, while very few graves of the enemy would be marked. It was generally stated that decomposing human bodies were much more offensive than those of animals, horses especially sharing with men, the risk of battle. Lack of identification was also ascribed to the custom of stripping the bodies of both friend and foe, by the Confederates, and this custom was defended as necessary on account of the pitifully

meagre equipment of many of the Confederate troops. One of the burial party in the Wheat Field had also served similarly about ten days after the second battle of Bull Run. The first body that they attempted to remove to a trench burst and spread over several feet so that they learned to cover bodies as they lay by merely piling earth over them from both sides.

The rocky nature of Little Round Top and the adjacent hills suggested the presence of rattle snakes. It occurred to us that, in such regions and in the swamps of the Peninsular campaign, snake bites might have caused many deaths. To our surprise all the veterans interrogated said that they had never even heard of such a case and all but one said that they did not remember seeing a snake during any massed movements of troops, the exception being a badly frightened black snake that ran through a camp. This suggested that the noise or odor of large bodies of men drive snakes from the vicinity.

Near the equestrian statue of General Hancock we encountered two veterans who had been near him at the time he was wounded. During his presidential candidacy some of his opponents were low enough to refer to him as emasculated, although, if true, his mutilation, received in action, would have been as honorable as the loss of a limb. The facts, as stated, are that he was wounded while on horseback directing the battle; either directly by a bullet or by a saddle nail driven by the bullet, producing a painful wound of the soft parts between the testicles.

A commendable feature of the great gathering was, so far as could be judged, an entire absence of the female birds of prey that are usually so conspicuous. We did not observe a single instance of impropriety of even the mildest degree nor see a person who did not look respectable.

Attendance at the various exercises in what was said to be the largest tent in the world, impressed us with the strangeness of discourses which were not highly technical. Perhaps, as a profession, we neglect lectures and discourses that are neither medical nor closely analogous to medical papers in their technicality. The speakers, military, political and clerical—including one gentlemen who spoke the most peculiar high-class Anglo-American dialect that we have ever heard—all rightly emphasized the importance of the battle, but went rather too far in ascribing to it the virtual settlement of the Rebellion. It is true that it concluded the attempt of the south to invade the north and that it was a great northern victory, but the battle itself can scarcely be considered as a defeat of the southern cause. As many veterans expressed it, in partial justification of the failure to follow up the victory, the Union commanders did not know till a day

or two after the battle that they really had defeated Lee, and this is only another way of saying that, in spite of the superiority of numbers and advantages of being on the defensive for the first time in any great battle of the war, the battle itself was not the decided victory which it is usually considered. Lee was already withdrawing toward the north when the encounter at Gettysburg took place; while repulsed in his offensive movements his losses were absolutely smaller and relatively only slightly greater than his opponents, and his continued retreat was due to the necessity of reaching a base of supplies. It required a year and three-quarters of hard fighting to give to the battle of Gettysburg its significance as a turn of the tide. We are inclined to believe that there are very few crises in any line of human effort, which do not require continued hard fighting to give them their critical value.

Editorial Announcement

The BUFFALO MEDICAL JOURNAL will co-operate with any medical organization or any organization of an allied profession or representing any public movement in which physicians are especially interested by establishing a monthly or quarterly department, under the editorial management of such organization. Any such department that may be added will be supplementary to the present form of the JOURNAL, and the charge made will be based on actual increase of expense. Except as to the expediency of establishing and maintaining such department, its management may be entirely independent and an adequate announcement will be made on the Cover and in the Table of Contents.

TOPICS OF PUBLIC INTEREST.

A society of centenarians has recently been formed in Tokio, Japan, with a membership of 500 at the first meeting. The oldest member is a woman, aged 113.

Rosa Rutelli walked from Parma to a hospital in Milan, June 7, for relief for her first sickness, complaining of loss of appetite. She is a little over 102.

Asa Brainerd, 100 years old, a Civil War veteran, appeared before a committee of the Buffalo Aldermen, June 5, to protest against the erection of a cinemetograph theater.

Mrs. Elizabeth Maugherman died in June, aged 108. She had had seventeen children, four of whom survive her.

Rev. John Fryer Mesick, a graduate of Rutgers, 1834, the oldest living college man in the country, received the degree of LL. D. from his alma mater at the latest commencement.

Emma Wagner, the oldest woman in Arkansas, aged 112, recently walked six miles in three hours, without bad effect.

David Briggs of Westfield, N. Y., was 100 years old April 18.

Samuel Keefer of Dresden, near Penn Yan, has lately taken up scientific gardening as a study and recreation. He is over 100.

Adrian San Roman of the Province of Leon, Spain, died June 8, aged 114. He is survived by one son, aged 88, three grandchildren, aged 58, 59 and 63 respectively; thirteen great grandchildren, forty-five great great grandchildren, one great great great grandchild. Sixty-two direct descendants and 240 relatives attended his funeral.

Dr. Cho Choy of China, lately a resident of Cuba, died at Ellis Island at his immigration into this country, after a sudden illness of less than a day, at the reputed age of 150.

Dr. John Huston Finley, President of the College of the city of New York, has been elected by the State Board of Regents for an indefinite term as State Commissioner of Education, at a salary of \$10,000. This is an admirable appointment.

THE STATE BOARD OF REGENTS, made the following appointments July 2:

State Board of Dental Examiners, William C. Deane, first district, and Albert M. Wright, third district, reappointed.

State Board of Pharmacy, George C. Diekman, New York, and Byron M. Hyde, Rochester, reappointed, and Thomas F. Raymow, Brooklyn, to succeed Clarence O. Bigelow, New York.

State Board of Examiners of Certified Public Accountants, Charles S. McCulloh and Samuel D. Patterson, New York.

State Board of Examiners in Optometry, Charles F. Prentice, New York, and George R. Fox, Buffalo.

State Board of Nurse Examiners, Miss Jane E. Hitchcock, New York, reappointed.

State Board of Medical Examiners, Earl H. King, Saratoga Springs, to succeed Dr. Lee H. Smith.

Inspector in Pharmacy, Harry N. Butler, New York.

The following academies were admitted to the university:

Eastport Union School, Genoa Union School, Hamilton Institute for girls, Saint Patrick's School, Buffalo, and Saint Mary's School, Swormville.

MUNICIPAL SEIZURE OF ICE PLANTS. During a recent strike the Board of Health of Cincinnati seized and began the operation of ice plants, by the authority of the Mayor, Henry T. Hunt, who declared that a public emergency existed. We understand that the dispute between employers and employees has since been settled. Having in mind the recent strike of street car employees in Buffalo, Jamestown and other places, it occurs to us that municipal and state authorities should lay down and enforce the general rule that no dispute of this nature shall be made an endurance test on the part of the public. No economic question short of those resulting in political revolution should justify violence or serious interference either with the health, or convenience of the public. Unfortunately, the only way to prevent violence, seems to be by application of the principle of *similia similibus*. If it became generally known that the first few men who resorted to violence would be killed, economic disputes would be settled by peaceable methods and not by the logic of force.

THE NORTH TONAWANDA MUNICIPAL HOSPITAL has been named the DeGraff Memorial Hospital, in recognition of the donation of \$20,000. Work has been begun under the charge of the Mayor, Dr. John A. Rafter. It will have thirty rooms, will be constructed without expense to the public, but will be jointly supported by both Tonawandas. We understand that the Hospital will be public both to the laity and to the profession.

VENEREAL DISEASES are required to be reported as contagious in New York, Utah, New Jersey, Washington, California and, recently, Indiana. We question very much whether the encroachment on the old established principle of privileged communications is justified, or whether the law can be enforced.

MINIMUM CHARGE FOR ELECTRICITY. We regret very much to announce that the Public Service Commission, while forcing a somewhat more reasonable scale of charges, has confirmed the minimum charge of \$12 a year. There is this advantage gained to the small consumer, that a fluctuation of use does not require him to pay more than a dollar a month if his average does not exceed this amount. This rate applies to Buffalo, but will doubtless effect other cities indirectly.

TUBERCULOSIS CAMP FOR NIAGARA FALLS. Land has been secured north of Park avenue, between Main street and the River. The camp is expected to be ready before August 1.

THE BUFFALO ASSOCIATION FOR THE RELIEF AND CONTROL OF TUBERCULOSIS announces that there are three institutions ready for the treatment of the three groups of cases mentioned editorially in the July issue: For incipient and early, non-infectious cases, the J. N. Adam Memorial Hospital at Perrysburg (of, for and by but not in) Erie County; for more advanced cases, the Open Air Camp on Grider street, near Kensington avenue; for advanced, bed-ridden cases, the remodeled Municipal Hospital on E. Ferry street, between Fillmore and Kehr. The first and last receive patients on application to the Buffalo Dept. of Health. The camp is under direct charge of the Association; there is a physician in attendance, but cases need not be relinquished. Patients will be cared for, night and day, throughout the pleasant weather, or may attend during the day only. For all classes of cases needing assistance, provision will be made.

WOOD ALCOHOL BLINDNESS. The Buffalo Association for the Prevention of Blindness has recently published in the daily press a warning against this poison, citing both immediately fatal and blinding cases. A Niagara Falls judge, in sentencing a man who had become drunk on Scotch whiskey, said: "If you want a strong drink, take wood alcohol. It is not nearly so bad as Scotch." Sarcasm of this sort is dangerous.

EYE INJURIES FROM GOLF BALLS. The Massachusetts State Board of Health has recently investigated two cases, and has had analyses made of the liquid cores of a number of balls. Three types of solution have been found: Water, zinc chlorid solution, soft soap with talc or red lead in suspension.

Statistics of Animals Killed For Food, 1912

1. Chicago, 12,910,506	6. South St. Joseph, 2,671,443
2. Kansas City, 5,646,161.	7. Boston, 1,826,044
3. South Omaha, 4,609,655	8. Indianapolis, 1,598,503
4. New York City, 3,034,685	9. Sioux City, 1,520,607
5. East St. Louis, 2,966,292	10. Buffalo, 1,381,271

232,687 whole carcasses and 494,328 parts were condemned, as well as nearly 18,000,000 pounds of prepared meat and its products.

Automobile Notes

To prevent moisture and rain from obscuring the view, rub a little of a mixture of equal parts of kerosene and glycerin over the glass.

Do not pay more than 18 cents for gasolene nor more than 30 cents for engine oil, per gallon, unless you prefer to be extravagant.

There is no more efficient agent for promoting the sale of tires than a well oiled road with holes filled with small particles of corniferous limestone.

It needs no argument that an automobile going forty miles an hour in a city is a source of danger. Here are a few other dangers just as great: Searchlights used in the city; in-bound automobilists from clubs, with their own tanks too full; street commissioners who allow holes to develop so that vehicles pursue serpentine courses; children playing in the street and "jay-walkers"; drivers asleep on wagons; slowly moving vehicles in the middle of the street; the driver of any kind of a vehicle who, without reference to traffic rules, does not develop a sense of what the average careful driver must or would naturally do, in an emergency. It is this instinct of driving that renders rapid transit possible in the narrow, crowded streets of European cities, and it is the lack of it that causes accidents with no technical violation of any traffic law.

HEALTH SCHOOL FOR ROCHESTER. At the petition of the Woman's Union, the Rochester School Department is considering the establishment of courses in Dietetics, Physiology, Prophylaxis, Nursing, etc. It is probable that lectures will be given in the morning, afternoon and evening. This is a most important movement and one that will be imitated, we trust, by other cities.

PERSONALS.

Announcements of removals, travel, and other matters of interest are requested. Please report any errors in the listing of any physician, in the State and other directories that we may co-operate with the State Society in securing a correct list of physicians.

Dr. Frederick A. Hayes of Buffalo has recently returned from a hunting trip.

Dr. F. W. Filsinger of Buffalo announces the removal of his office and residence to 343 E. Utica street.

Dr. Wm. G. Telfair of Rochester has associated himself with the new management of the Glenwood Sanitarium of Dansville, N. Y.

Dr. Grover W. Wende of Buffalo is in Europe.

Dr. William S. Grimes of Detroit has been appointed Examining Surgeon of the first district of Michigan, including Detroit.

Dr. George A. Himmelsbach and Dr. Wm. G. Taylor of Buffalo will attend the Medical Congress in London and proceed to the Continent, returning early in the fall.

Dr. H. I. Davenport of Auburn has just returned from a two weeks' automobile tour of Massachusetts, Vermont and eastern New York.

Major John B. Coakley, M. D., a Confederate war surgeon, Dr. Arthur W. Hurd and Dr. A. L. Benedict of Buffalo attended the Gettysburg anniversary celebration.

Dr. Edith R. Hatch of Buffalo recently spent ten days in Williamsburg, Pa.

Dr. A. E. Bartoo has moved from Buffalo to Wilson, N. Y.

Dr. Albert E. Woehnert of Buffalo is in Europe.

Dr. Ira P. Trevett of Lackawanna attended the Gettysburg anniversary with his father, Mr. L. C. Trevett of the 116th N. Y. Volunteers.

Dr. James P. Barr of Buffalo has been fishing in the Muskoka region.

Dr. Wm. Brady of Elmira is spending the month of July with his parents in Canandaigua.

Dr. C. F. Abbott of Elmira has just returned from a two weeks' trip through New Jersey, Delaware and Maryland.

Dr. C. Haase of Elmira has recovered from an attack of diphtheria. In August he sails for Europe to spend four months in Vienna.

Dr. Lee Kinner of Elmira has returned from a two weeks' visit to Chicago.

Dr. Inda of Buffalo, U. B., 1913, has been appointed interne at the Arnot-Ogden Hospital, Elmira, N. Y.

Dr. C. D. Young of Rochester has been away for months in the Thousand Islands and St. Lawrence district.

Dr. James W. Enright, until recently at Pavilion, has removed to Rochester, N. Y., corner of Child and Wilder streets.

Dr. W. E. Powell of Rochester has opened an office at 251 Arnett Boulevard.

Dr. E. H. Wolcott of Rochester is at Montreal and on the St. Lawrence River for a few weeks.

Dr. Edward W. Jackson of Rochester will leave shortly for an extended period of study abroad and then will settle in Rochester permanently.

Dr. E. B. Angell is spending the summer at his cottage on the Lake shore near Rochester.

Dr. D. H. Atwater of Rochester is away on the Jersey coast for several weeks.

Dr. S. W. Little is spending the summer at his cottage on the Lake shore near Rochester.

Dr. M. May Allen of Rochester has been away for a short vacation.

OBITUARIES.

Readers are requested to report promptly the death of any physician in Western New York, or former residents of this region, or graduates of any medical school in Western New York and to call the attention of the families of the deceased, our desire to publish adequate obituary notices.

Dr. Phineas Sewall Stearns, P. & S., Boston, 1882, formerly in practice at Owego and later at Buffalo, died in Stony Creek, N. Y., May 5, aged 83.

Dr. Harry M. Hallock, P. & S. (Columbia), 1889, Major in the Medical Corps, U. S. A., was found dead in the woods near Hot Springs Ark., May 19, having shot himself in the head. He was 45 years old. He was retired in 1908 on account of disabilities received in the service and was, later, for some time Medical Director of the Government Reservation at Hot Springs. Major Hallock was, several years ago, stationed at Fort Porter, Buffalo, and was well known to many of the local profession.

Dr. George Henry De Nike, Queen's University of Kingston, Ont., 1882, died suddenly in his sanitarium at Clinton, N. Y., June 13, aged about 57.

Dr. Edward Everett Hyde, A. B., Knox College, 1896, M. D. P. & S. of Chicago, 1900, died July 4, aged 38, of acute myelogenous leucocythaemia. Shortly after receiving his medical degree he was ordained a minister of the Christian Church and went to the Caroline Islands as a missionary, returning the next year on account of his wife's health. Since 1902 he had served as assistant to the Editor of the Journal of the A. M. A., most acceptably to all. We knew him only by correspondence and one or two very brief meetings, but wish to acknowledge here his many courtesies. His death was undoubtedly hastened by his fatigue at the Minneapolis meeting of the A. M. A., where he had charge of the Daily Bulletin and discharged other arduous duties. The serious nature of the weakness which he felt was not recognized till after the accomplishment of this last task, a few days before his death. "Peace hath her heroes no less than war."

Dr. James Lewis Watt, L. I. C. Hospital, 1893, a practitioner of Sherman, N. Y., died at the Brooks Memorial Hospital, Dunkirk, June 24, aged 41, of gastric ulcer.

Augustus Philemon Head, M. D., Rush, 1884, one of the general editors of the Practical Medicine Series of Year Books, died of pneumonia in Austin, Chicago, Ill., June 11, at the age of 51.

Dr. Eugene F. Hoyt, Hahnemann of New York, 1870, a practitioner of New York City, died in Newark, N. J., early in June. He was born in Niagara County in 1846.

Dr. Charles G. Combs (not listed in State Directory) died July 17 at his home in Rochester, aged 52.

The recent mortality statistics of the A. M. A. show a large number of violent deaths among physicians. Not counting surgical operations, septicaemia after wounds, etc., we note in the last seventy-three deaths recorded, eight suicides and five other accidental deaths, including one by murder. It is quite possible, too, that the unusually large number of other sudden deaths may include some suicides. The standard mortality rate of the medical profession includes about 7 per cent. by known suicide, which is far above that of any other profession, trade or class except a few in which the occupational designation implies misfortune and risk. It seems to us that it is the duty of the profession to inquire into this matter and to take steps, either in the way of organized benevolence or by individual effort to put more happiness and comfort into the lives of the less fortunate, to remove what amounts to an odium.

SOCIETY MEETINGS.

Brief reports and announcements of meetings of societies of Western New York and of those of general scope are requested from secretaries. Copy should be on hand by the fifteenth of each month. Full transactions will be published at cost of composition.

FIRST NATIONAL CONGRESS (FRENCH) FOR THE PROTECTION OF EARLY LIFE. May 9-11, 1913. (Abstracted from the Jour. de Med. de Bordeaux.)

Paul Morel calls attention to the considerable difference in the relation of birth and death rates in different parts of France. The nine chief cities of the southwest, including Bordeaux and Toulouse, had a total of 9,203 births and 12,531 deaths last year, while the six cities of the north had a total of 12,205 births and 10,809 deaths. The summer of 1911 was terribly hot and caused an unusually high infantile mortality all over Europe. More than 100,000 infants died, and the author estimates that 90,000 should have been saved that year and 50,000 in normal years.

Moussous and Leuret presented a paper on weaning, excellent, but containing nothing particularly new.

Several reports were made regarding amelioration of the conditions under which children are raised, with suggestions as to medical inspection, popular instruction, reporting cases, etc. About 190,000 infants are turned over to wet nurses every year, and, while the Roussel law has exercised considerable control over the nurses, there is no provision and no authority for the direct supervision of the nursling. The ideal method would be the general institution of creches like that at Porchefontaine, but this was not regarded as practicable.

Felhoen discussed the nourishment of infants whose mothers work in factories. Those infants which are entrusted to neighbors or relatives are rarely wet nursed and the mortality is about 86 per cent. Creches are expensive relatively to their use and benefit but are inevitable. The best solution is the establishment of rest rooms in factories where mothers can nurse their infants during working hours, no woman being allowed to return to work till a month after the birth. Mercier described an industrial creche of this kind at the shop of the widow of Albert Chabrat. At an average cost of 2 cents a week per employee, a daily indemnity is paid to each mother of 40 cents a day, for a month before and after labor, with an additional \$2 if she nurses the child. An infant's outfit is also furnished and a cradle is loaned for a year. The Bordeaux League against Infant Mortality also maintains a creche, where infants are cared for, their linen washed and toilet necessities are supplied. Soup is also furnished free to the mothers to induce them to report regularly to nurse the children, at 10 and 4 o'clock.

Senator Paul Strauss stated that the mortality of legitimate infants was 10 per cent., that of illegitimate 22.2 per cent. He advocated public assistance to the girl-mothers and legalized inquiry as to paternity. The birth of feeble and premature infants should be prevented by prophylaxis against alcoholism, tuberculosis and syphilis. The mortality for nurslings is 131 per mille, of artificially reared infants 182 per mille. A third of the mortality of the first year occurs in the first month. The value of a campaign against the influence of ignorance and poverty is shown by the decline of the mortality for the first year of life from 17.8 per mille for the period of 1872-5 to 13.01 for the period 1906-9. But the possibility of still better results is shown by the Norwegian statistics for the latter period, 7.01 per mille. (Note—There appears to be some discrepancy between the statistics given. We have reduced the last figures from deaths per 100,000. It would seem that percentages should be substituted for per mille figures.)

Various pledges were adopted as to support and advocacy of legislation. We do not reproduce them, as they are not directly applicable to American conditions and the general principles involved are well established.

The LAKE KEUKA MEDICAL ASSOCIATION held its annual meeting July 17 and 18. The following officers were elected: President, Dr. Floyd S. Crego, Buffalo; vice-President, Homer J. Knowlton, Geneva; Secretary-Treasurer, Dr. E. Carlton Foster, Penn Yan; Recording Secretary, Dr. W. W. Smith, Avoca.

LA SOCIÉTÉ D'HYGIÈNE DE L'ENFANCE was organized in 1887. It holds monthly meetings, with intervening meetings of the council, has physicians and philanthropists of both sexes as members, publishes a monthly bulletin, and deals broadly with the various problems of child welfare. The president is Dr. P. Guillaumet. The administrative and publication office is at 10 rue St. Antoine, Paris.

A series of four medals and honorable mentions will be awarded at the next annual meeting to essayists engaging in a competition closed with the last day of 1913. The subject for discussion is "The Place Which Ideas of Puericulture and Hygiene of Childhood Should Occupy in Modern Education." Essays may be presented in French, English, German, Italian or Spanish, designated by a motto or device, duplicated on a sealed envelope containing the name and address of the competitor.

"The Question of Depopulation," by Dr. Garnier, Sec.-Gen. of the Society. In the 17th Century the population of France was about 20,000,000. At the time of the Franco-Prussian War of 1870-71, it was 40,000,000, of which 1,500,000 were ceded with Alsace-Lorraine. Since then the population has remained nearly stationary, while that of Germany has increased one-third. The author suggests that the political solidarity of Germany and her policy of militarism accounts for the rapid increase in population and quotes Napoleon's answer to Mme. de Stael's question. "What is the quality that your Majesty most appreciates in woman?" "That of furnishing me soldiers." Thus, while war was formerly regarded as a terrible factor in diminishing population or even as an ultimately favorable remedy of super-population, it is now the end for which the increase of population, stimulated in various ways, is the means. The author also emphasizes the fact that the death rate is more important than the birth rate in an increase of population, since, even if not phenomenally high, the former indicates the prevalence of diseases which prevent long life of mothers, produce sterility, as syphilis, gonorrhoea, etc., produce poverty and hence discourage child bearing, and surround the child actually born with unfavorable factors as to careful rearing, even if not directly involving infection and hereditary transmission. Alcoholism, tuberculosis and syphilis are regarded as the chief diseases concerned in relative depopulation.

The Hygiene of Nurslings in the country. Dr. Rousseau pleads especially for the "assisted" children which are sent to the country, usually to well disposed and charitable persons. He advocates some system of co-operation between the monthly inspector for the Society and the local physician and some charitable lady

so that child and nurse may not be absent at the time of the inspection, and to provide for prompt attention to minor ailments at their incipience; also for instruction in the general principles of hygiene of the persons caring for these assisted children.

The June Bulletin also reviews various articles dealing with the action of the sun's rays. While advocating the treatment of tuberculosis in high altitudes or along the ocean at places where there is abundance of sunshine, attention is called to the possible danger of sunburn and experiments with color filters are cited to show that this action is due to ultra-violet rays. The opposing influence of lightning and aurora borealis in increasing and decreasing the amount of ozone in the atmosphere is mentioned and various problems of physics of light as applied to physiologic effects are suggested.

Note—The Bulletin of the Society is received regularly at the office of the BUFFALO MEDICAL JOURNAL, and we should be glad to have it used by some local organization interested in child welfare.

MONROE COUNTY BRANCH OF N. Y. STATE SANITARY OFFICERS' ASSOCIATION. This body combined business and pleasure July 24, the members going by automobiles to Straight Lake, discussing the new Public Health Law and a good dinner, and returning to their homes by moonlight.

OUR CONTEMPORARIES

The *Smart Set*, which is not so much immoral as cynical, in its May issue questions the extent of white slavery on account of the abundant supply of free labor in this nefarious industry.

The *Texas Medical Journal*, April, while maintaining a special department of Eugenics and Sex Hygiene, under the editorship of Mrs. F. E. Daniel, wife of the editor, contains a refreshingly sane editorial on the tendency to overdo sex education in the young. There is mentioned the seven-year-old son of a university professor who entertained callers by describing the lacerations which his mother suffered during child-birth.

THE DOCTOR'S FACTOTUM, June, is an interesting quarterly published by the N. Y. Pharmacal Assn., Arlington Chemical Co. and Palisades Mfg. Co. of Yonkers. It contains a selection of articles from medical literature and a collection of humorous items and poems bearing on medicine.

METHODS OF COMPULSORY MEDICINE ADVOCATES.—Dr. Wiley, in an address delivered at Dayton, Ohio, October 29, according to the Dayton newspapers, used these words:

“In Indiana, Dr. Perry, with an appropriation of \$100,000, has done wonderful work. He has stamped out at least one infectious disease, namely, diphtheria. The State Board of Health keeps the County Board of Health supplied at all times with serum, and as soon as a case of diphtheria appears it is immediately stamped out. *There has not been a death from diphtheria in Indiana in the last four years.*”

According to the Indiana State Board of Health Bulletins there were, in 1909, 338 deaths from diphtheria; in 1910, 381 deaths; in 1911, 343 deaths, and during the first eight months of 1912, 151 deaths, or a total of 1,213 deaths from this disease in something less than four years.

These methods of impressing the public ear with the benefits of antitoxin are not at all uncommon, and to listen to such addresses as Dr. Wiley's one would suppose that antitoxin had succeeded in entirely eliminating diphtheria, when, as a matter of fact, it has done nothing of the kind. In 1904 and 1905 the deaths from diphtheria in Indiana were respectively 314 and 366. If antitoxin or the serum “supplied at all times” by the Indiana Board of Health is doing such wonders, why this increase in the mortality during the past four years?

The above is from the *Medical Century* of February, 1913, which is hostile to what has been termed the Medical Trust by its enemies. We do not believe that any cause is so worthy as to justify a mis-statement of facts, but it occurs to ask whether it is a fact that Dr. Wiley made the statement attributed to him.

Little Conveniences and Economies.

To protect the flame of the Bunsen burner from drafts and thus to secure uniform temperature in incubating, evaporating, extracting fats, etc., inclose the burner with a mica chimney. One way to do this is to fasten the base of the burner to a fairly large block of wood with three or four screw-eyes. Set over the stem of the Bunsen a tall chimney support such as used with a mantel gas light. The projections from this support can be fastened by a fine wire or picture cord passing through the screw-eyes.

Faeces, stomach contents, etc., pass through ordinary filters very slowly. Time may be saved by preliminary filtration through white paper napkin. Test the napkin with the various indicators to be used, to make sure that there will be no interference with subsequent tests. Saving of time in filtration means increased

accuracy, on account of the fermentative and putrefactive changes liable to occur with delay.

For titration, a white porcelain receptacle affords a better background for colors than glass, even when held against a white surface. A rather narrow, fairly deep receptacle is more convenient than a shallow dish. An elcaya cream jar may be used.

An old lined glove is a satisfactory test-tube holder. The ulnar portion may be removed for the sake of coolness.

A water power centrifuge should be securely mounted and requires a good head of water. One way is to place a short piece of *plank* across the faucet end of a bath tub or diagonally from this end to the wall side, fastening the plank to the tub by metal screw clamps. To render the plank more secure, chisel notches for the clamps. Before screwing the centrifuge to the plank, make sure that it is located so that the revolving tubes will strike nothing and will not even be in the way.

BOOK REVIEWS.

SELECTED PAPERS OF DR. CARLOS J. FINLAY, published by the Secretary of Sanitation and Benevolence of Cuba. Dr. Manuel Varona Suarez. 657 pages, illustrated, alternately in English and Spanish.

This publication was originally decreed by the Provisional Government in 1908 and has been published by the present government. Dr. Finlay's work in regard to tropic and semi-tropic diseases is well known, so that this volume cannot be regarded merely as a monument to his work in Cuba, but, especially as it contains previously unpublished matter, it ranks high as a practical and modern medical publication.

PUBLICATIONS OF THE MASSACHUSETTS GENERAL HOSPITAL, Vol. 4, No. 1, January, 1913.

This contains a number of very valuable contributions on various medical and surgical topics. We believe, as a general principle, that matter of so great value to the profession should appear in regular periodicals and not in special publications or transactions.

PROCEEDINGS OF THE ROYAL SOCIETY OF MEDICINE, Vol. 6, No. 6, April, 1913. Published by Longmans, Green & Co., London; 7/6d.

One of the most interesting articles, dealing extensively with statistics, is on "The House as a Contributory Factor in the

Death Rate," by A. K. Chalmers. We are surprised to note that the death rates, while showing a diminution of from 25 per cent. down to 3.6 per cent. for the respective number of apartments, in contrasting statistics of 1901 with the average for 1909-12, are progressively higher as we pass from one apartment to two, three and four-apartment houses. It occurs to us that this is due to a difference in dialect, the English not recognizing the nice distinction between apartment and compartment insisted on in America, so that the term four-apartment does not indicate a building consisting of four flats, as in America, the numbers rather indicating rooms in what we should call apartments, in tenement houses.

TRANSACTIONS OF THE FIFTH INTERNATIONAL SANITARY CONFERENCE OF THE AMERICAN REPUBLICS, held in Santiago de Chile, November 5-11, 1911. Published and distributed under the auspices of the Pan-American Union, John Barrett, Director-General, Washington, D .C.

This conference dealt with a miscellaneous series of topics, as suggested by the experience of different countries. The repeated collation of such experience will ultimately be of great value, not only as regards international problems, but also those affecting individual countries. The Pan-American Union deals with many political problems and the good work of Mr. Barrett is well known to statesmen and sociologists.

THE DOCTOR'S RIOT. This is a pamphlet containing fac similes of illustrations and items in old newspapers dealing with the riot in New York in 1788, on account of suspected grave robbing for anatomic purposes. This riot, while apparently unjustified, ultimately led to more liberal legislation regarding the supply of anatomic material for medical schools. This pamphlet is issued by Messrs. Reed & Carnrick of Jersey City. The editor has, for some years, preserved in a file of "History and Art of Medicine via Advertisers" similar publications. Such a file becomes of considerable value as it gradually accumulates, and we take pleasure in acknowledging this contribution to medical literature.

TRANSACTIONS OF THE FIFTEENTH ANNUAL MEETING OF THE AMERICAN GASTRO-ENTEROLOGIC ASSOCIATION at Atlantic City, June 3 and 4, 1912.

This is a neatly bound collection of reprints, covering a wide range of topics, discussions, business proceedings, lists of officers and members, etc., being included.

ANNUAL REPORT OF THE DEPARTMENT OF HEALTH OF BUFFALO
for the year 1912.

This deals in detail with the manifold activities of the Department and reflects great credit on the Commissioner, Dr. Francis E. Fronczak, and his staff.

COAGULOSE. Pamphlet issued by Parke, Davis & Co. This describes the treatment of haemorrhage with precipitated blood serum, as elaborated by G. H. A. Clowes, Ph. D., and F. C. Busch, M. D., of Buffalo. This method seems destined to revolutionize the control of haemorrhage, short of gross lesion obviously requiring ligation. We feel a sense of local pride that the method is a new achievement for the special territory of this JOURNAL. Both the originators of the method and the firm who have shown so great acumen in placing the discovery on a practical commercial basis, have our congratulations.

LOCATION OF GASOLINE ENGINE TROUBLES MADE EASY. By Victor W. Page, M. E., published by the Norman W. Hanley Publishing Co., 132 Nassau St., New York; 25 cents.

This is a chart with a large diagram of a typical automobile engine, following the analogy of a table of differential diagnosis familiar to the medical profession. The table is arranged by cardinal symptoms, lost power and over-heating, noisy operation, skipping. Under these general headings the gross anatomic location, pathology, symptomatology and therapeutics are given. With the aid of this table, random vivisections of cars on the street will become less frequent and, with due regard to the considerable differences in comparative anatomy, prompt operation, intelligently directed, will prove of great prophylactic value.

THE OPERATING ROOM AND THE PATIENT, by Dr. Russell S. Fowler of Brooklyn; published by the W. B. Saunders Co., Philadelphia and London; 611 pages, 212 illustrations; \$3.50; third edition.

This work is a recognition of the growing importance attached to surgical detail, especially in avoiding misfortunes due to imperfect equipment and to disregard of the status of the patient himself. It is particularly valuable to the occasional operator and to the one forced to operate in emergencies and without the help of a fully equipped and well manned operating room.

METHODS AND MORALS IN MEDICAL PRACTICE, or The Evolution of the Bath Robe. By A. J. Whitworth, M. D.

This is a red covered pamphlet, including the certificate of an attorney that it is fit to pass through the mails, and it contains an autobiography stating the author's qualifications for judging of erotic matters, which include actual experience as an osteopath. It is a scathing denunciation of the "Knight of the Hand and Robe" and, while we trust that the serious sexual results charged against Osteopathy, are exaggerated, and wish that the manuscript might have been revised before publication, this book certainly calls attention to a matter deserving the consideration of the profession and of sociologists. We have, personally, ever since the development of osteopathic practice, stated bluntly to women patients asking advice regarding such manipulations, that we did not consider it decent for a woman to subject herself to manipulation by a man, unless under certain circumstances in which a masseuse was not competent, and unless proper chaperonage was provided. And we quite agree with the author that repeated and protracted manual rubbing of a practically nude female by a practically nude man presents no true analogy to the necessary, brief and occasional exposure of a patient by a regular physician for technical diagnostic and therapeutic procedures.

WHAT HEART PATIENTS SHOULD KNOW AND DO. J. H. Honan, M. D., Bad-Nauheim, Germany; published by Dodd, Mead & Co., New York; 204 pages; \$1.20.

This is an intelligent, conservative and well-written book—of its kind. This limitation is a frank confession of personal prejudice toward any semi-popular presentation of systems of hygiene and therapeutics, with information to the patient regarding his own condition. This prejudice is founded on the following conceptions: That no similar work can afford the competent physician information which he does not already possess: that it is impossible to translate into non-technical language, technical scientific points which the technically uneducated persons will always grasp in their true significance; that what the "heart patient should know" or what any other patient should know about his own and related conditions, varies widely according to circumstances; that "what the heart patient"—or any other—"should know," might better be presented to him and to his family by the individual attendant, in accordance with individual and ever-changing conditions.

REPORT OF THE N. Y. STATE VETERINARY COLLEGE at Cornell University for the year 1911-12, by the Director, Veranus A. Moore.

This consists largely of scientific articles, including a discussion of abortion and sterility in cattle, tuberculosis of chickens (not pathogenic to rabbits and guinea pigs) and a report of mallein reactions in horses.

PICTURE BOOK OF EARLIER BUFFALO. Vol. 16 of the Buffalo Historical Society publications, prepared by Frank H. Severance, Secretary.

This is a most interesting collection of pictures, drawings and photographs, illustrating the history of Buffalo. In April, 1913, Juba Storrs made a map showing the location of all the principal buildings of the village before it was burned by the British. This map covered the area from a little south of Exchange street to a little north of Huron street and from Ellicott to Franklin streets (giving the present names). Dr. Chapin resided on Swan street between Main and Pearl, Dr. Johnson on the west side of Main street nearly as far north as Chippewa. Townsend & Coit, druggists, were located at the southwest corner of Main and Swan, Le Coulteulx, the other druggist, on the west side of Exchange between Main and Washington. The twin pumps on the Terrace, where the writer's uncle went for water, and from which the writer himself drank in the happy days when typhoid was a dispensation of Providence, are shown. The Old Hospital of the Sisters of Charity and the Medical College, the original wing of the General Hospital, are of especial interest to the medical profession. The old brick residences used as city and county buildings before the erection of the present City and County Hall recall some pleasant visits to Dr. Thomas Lothrop, during his term of office as Superintendent of Education.

TWENTY-EIGHTH ANNUAL REPORT OF THE BUREAU OF AMERICAN ARCHAEOLOGY, by W. H. Holmes, Chief, published 1912.

This includes an exhaustive description of Casa Grande, Arizona, by Jesse Walter Fewkes; Antiquities of the upper Verde and Walnut Creek Valleys, Arizona, by the same; and a preliminary report on the Linguistic Classification of the Algonquinian Tribes by Truman Michelson. We recommend this last article especially to those who may have the impression that the Indian languages were crude and simple.

DISEASES OF THE RECTUM AND PELVIC COLON, Martin L. Bodkin, M. D., Brooklyn. E. B. Treat & Co., New York; 416 pages. 90 illustrations from drawings by Francis A. Deck; \$3.50.

This is an excellent, systematic text book, including a brief anatomic and physiologic chapter, one on methods of examination and gradually leading up to the discussion of the various diseased conditions encountered. Medical and surgical measures are well balanced in the therapeutics. The author is conservative, as, for instance, in his caution against using a sigmoidoscope without an obturator, as often advised, in his very fair discussion of the merits and demerits of various specula and of the various operations for haemorrhoids. We personally agree with his preference for the left lateral position for sigmoidoscopy.

LABORATORY METHODS, with Special Reference to the Needs of the General Practitioner, by Drs. B. G. R. and E. G. C. Williams of Traverse City, Mich. The C. V. Mosby Co., St. Louis; 210 pages, 43 engravings; \$2.50.

The great demand for this work has exhausted the first edition, and the present, second edition, though only slightly larger, contains a considerable number of additions, simplicity and brevity being the guiding principles of the authors. Dr. H. R. Harrower's apparatus for quickly determining urinary acidity, the albumin sputum test for tuberculosis, Bass & Watkins's Rapid Widal test, Noguchi's butyric acid test for syphilis and the urobilinogen test of hepatic function are among the additions. While designed especially for the general practitioner, the book abounds with ingenious devices and practical hints well worth the attention of even the expert.

BLOOD-PRESSURE, from the Clinical Standpoint, by Francis Ashley Faught, M. D., of the Medico-Chirurgical College, Philadelphia. Octavo of 281 pages, illustrated; Philadelphia and London, W. B. Saunders Co., 1913; price, \$3.00 net.

Approximately a quarter of the work deals with physiologic principles, the description of types of instruments, general methods of use, standards, etc. There follows a systematic consideration of the significance of blood pressure in different diseases, surgical, obstetric and insurance practice, and the last forty pages are devoted to a thorough consideration of the methods of controlling blood pressure.

ACUTE INTESTINAL INFECTIONS OF CHILDREN. This an interesting pamphlet prepared by the Lambert Pharmacal Co. of St. Louis.

THE DOCTOR'S FACTOTUM. The July issue of this journal, published by the N. Y. Pharmacal Assn., Arlington Chemical Co. and Palisade Mfg. Co. of Yonkers, should have been received by every physician in the country. If any has failed to receive it he should send his address, as it contains not only the brightest medical wit and humor published but much valuable information. Publications of the general nature of the last two mentioned should not be confused with the ordinary run of circulars.

THE PHYSIOGRAPHY OF THE RIO GRANDE VALLEY, N. M., in Relation to Pueblo Culture, by E. L. Hewitt, Junius Henderson and W. W. Robbins. Bureau of American Ethnology, Bulletin No. 54.

This is the story, told in scientific terms, from the evidence of geology and achaeology, of the gradual depopulation of a once comparatively fertile territory. Climatic changes, with diminishing water supply, in spite of an extensive system of irrigation, made the conditions of life harder and harder till the very considerable cliff dwellers were finally quite abandoned, probably a thousand years ago.

STERILITY IN THE MALE AND FEMALE AND ITS TREATMENT. Max Huhner, M. D., New York, published by the Rebman Co., New York; 262 pages; cloth; \$2.00.

The author points out that, in spite of various lesions, active spermatozoa may be present and, on the other hand, that, even if present, there may be male abnormalities or functional disorders which prevent their proper deposit. He, therefore, holds that the true test of male or female sterility, depends upon whether living spermatozoa can be removed from the cervix after coitus. The work is not only a thorough, analytic treatise on the subject, but enters into the physiology of impregnation. Its careful reading will dispel many erroneous generalizations, tend to prevent haphazard treatment and result not only in better professional knowledge but, ultimately, will have an influence on serious sociologic problems.

SEX, ITS ORIGIN AND DETERMINATION, Thomas E. Reed, M. D., Middletown, O.; published by the Rebman Co., New York; 313 pages; cloth; \$3.00.

In view of the general skepticism as to the possibility of determining sex in advance of birth, either in the etiologic or diagnostic sense, and the difficulty of doing justice either to the author's or other theories of the influence due to food, metabolic cycles, etc., in a brief review, we prefer not to anticipate the reader's attention to this book. It is a thoughtful and elaborate treatise and deserves the attention of those especially interested in sociologic problems.

THERAPEUTICS OF THE GASTRO-INTESTINAL TRACT, authorized translation of Dr. Carl Wegele's work in German, by Drs. Maurice H. Gross and I. W. Held of New York. Published by the Rebman Co., New York; 329 pages; cloth; \$3.00; illustrated.

The translators have adapted the original work by condensation in parts and by important additions, as the consideration of the duodenal tube. The work is much broader than its title, entering into diagnosis and other matters so as to base therapeutic suggestions on a proper understanding of the subject.

THE PRACTICAL MEDICINE SERIES, Vol 1, General Medicine, edited by Frank Billings, M. S. M. D., and J. H. Salisbury, A. M., M. D., of Chicago. Vol. 2, General Surgery, edited by John B. Murphy, A. M., M. D., LL. D., Chicago. The series under the general editorship of Gustavus P. Head, M. D., and Charles L. Mix A. M., M. D., of Chicago.

The yearly series consists of ten volumes, price \$10. The price of Vol. 1 (404 pages) is \$1.50, and of Vol. 2 (632 pages) \$2.00. All of the volumes are abundantly illustrated and each consists of a review of the literature of the branch covered by the special volumes, up to date of publication and covering approximately the year. This series is the best extant review of medical literature.

DIGEST OF LAWS AND REGULATIONS IN FORCE IN THE U. S., relating to the possession, use, sale and manufacture of poisons and habit-forming drugs, by M. I. Wilbert and Murray Galt Motter. U. S. Public Health Service Bulletin No. 56.

SUMMARIES OF LAWS RELATING TO THE COMMITMENT AND CARE OF THE INSANE IN THE U. S., prepared by John Koren for the National Committee for Mental Hygiene.

The value of such a compilation, both for reference and to secure the best possible legislation, needs no comment.

TEXT BOOK OF DISEASES OF THE NOSE, THROAT AND EAR, Francis R. Packard, M. D., Philadelphia, published by the J. B. Lippincott Co., Philadelphia and London; 377 large pages; 145 illustrations; \$3.50.

This volume is uniform with others of the New Medical Series and is a complete, systematic treatise of the specialty.

MASSAGE. Dr. Douglas Graham of Boston, with a chapter on Massage of the Eye by Dr. A. Darier of Paris, published by the J. B. Lippincott Co., Philadelphia and London; 574 pages; 75 illustrations; fourth edition, revised and enlarged.

The book begins with a history of massage and, indeed, throughout, it is replete with references to the early literature. Possibly some critics may object to the number of references to journals published one to three decades ago, too old to be considered modern, too recent to be historic. The book is very readable aside from its practical and scientific value as the author, without ever losing sight of his purpose, is full of dry wit, from the title page, where he quotes Job xxxi, 35: "Oh that mine adversary had written a book!" to the end.

GONORRHEA IN WOMEN, Its Pathology, Symptomatology, Diagnosis and Treatment; together with a review of the rare varieties of the disease which occur in men, women and children. By Charles C. Norris, M. D., Instructor in Gynecology at the University of Pennsylvania. Octavo of 521 pages, illustrated; Philadelphia and London, W. B. Saunders Co., 1913; cloth, \$6.00 net; half morocco, \$7.50 net.

An interesting historic chapter opens the work. Bacteriology and pathology are then discussed. Non-genital lesions are treated in a very thorough manner. The chapter on therapeutics is valuable, especially on account of the adoption of the Missourian method of presenting bacteriologic tables showing the effects of various antiseptics in strengths ordinarily used. The size of the work is due, not to literary effusiveness, but to the thoroughness and completeness with which the author has conceived his task.

VACCINE AND SERUM THERAPY, including a Study of Infections, Theories of Immunity, Specific Diagnosis and Chemotherapy, Edwin Henry Schorer, B. S., M. D., Dr. P. H., Kansas City. Published by the C. V. Mosby Co., St. Louis; 300 pages; \$3.00

This is a systematic treatise, both theoretic and practical, covering the ground as fully as possible in the present state of our knowledge, and not marked by undue enthusiasm over untried methods.

MEDICAL UNION NUMBER SIX, Wm. Harvey King; 60 pages; cloth; Boericke & Tafel, Philadelphia; 50 cents.

This little story applies to our own profession, doubtless in a somewhat exaggerated degree, the characteristics of a trade union. It is a story with a purpose and we wish it might be read by every working man—meaning by working man those who work only eight hours a day and five and a half days a week, when allowed to do so by professional laborers who ride in Pullman cars and put up at high-price hotels.

COLLECTED PAPERS BY THE STAFF OF ST. MARY'S HOSPITAL (Mayo Clinic) for 1912. Octavo of 842 pages, 219 illustrations; Philadelphia and London, W. B. Saunders Co., 1913; cloth, \$5.50 net.

The large number of conditions treated renders it impracticable to review this work in detail. The papers are concise, even when of considerable length and evince throughout the most careful study, wide experience and a judicial attitude based on actual statistics, well digested.

DISEASES OF THE EYE. By George E. deSchweinitz, M. D., Professor of Ophthalmology in the University of Pennsylvania. Seventh edition, thoroughly revised. Octavo of 979 pages, 360 text illustrations and seven lithographic plates; Philadelphia and London, W. B. Saunders Co., 1913; cloth, \$5 net; half morocco, \$6 net.

It was the privilege of the reviewer to become acquainted with deSchweinitz's work soon after he had emerged from the preparatory stage essential to every practitioner. His text book, appearing first in 1892, was already the expression of large experience and matured thought. Both the man and the book have grown with the years, and it is necessary for us merely to call attention to the number of the edition, the completeness of the

work and the fact that it has been accepted as standard authority for more than twenty years.

THE SURGICAL CLINICS OF JOHN B. MURPHY, M. D., at Mercy Hospital, Chicago. Volume II, Number 3 (June, 1913). Octavo of 185 pages, 62 illustrations; Philadelphia and London, W. B. Saunders Co., 1913; published bi-monthly; price, per year, paper, \$8.00; cloth, \$12.00.

This number contains the most varied collection of subjects and less than one-third have anything to do with either bones or joints. In fact, one subject connected under this heading belongs very distinctly to Orthopaedic surgery, though the method of bone-grafting seems to make this distinction old-fashioned. We refer to Dr. F. H. Albee's operation of bone-grafting for the cure of Potts Disease. In the introduction Dr. Murphy points out that by such operations orthopaedic surgery has become not a borderline surgery but a part of real surgery. Some twenty-two pages are devoted to this clinic. Another subject usually considered under Gynaecology is Dr. Murphy's method of treating a Procidentia Uteri. From Genito-Urinary Surgery we note a case of acute Suppurative Prostatitis, which is treated by drainage. On the whole the volume is very inspiring as illustrating the kind of work done by an up-to-date active operator.

ABSTRACTS.

POSTCONCEPTIONAL AND HEREDITARY SYPHILIS.—Jean Bobrie (*Etude sur la Syphilis*, etc., Paris, 1912) gives the following conclusions from his study of postconceptional syphilis and heredity of syphilis. In the absence of all treatment we may find placentas that are macroscopically healthy along with children evidently syphilitic. Nevertheless, maternal treatment has a marked effect on placental hypertrophy. The gravity of the syphilis of the fetus bears no relation to the hypertrophy of the placenta. Hydramnios is exceptional. At whatever time of pregnancy the maternal chancre is contracted the fetus is still infected. The degree of infection varies with the time of infection; the maximum gravity, causing macerated fetus, is at the third month; the gravity then decreases. The fetus never receives a true immunity; while there may be no evidence of syphilis the disease is still present in a latent form. Postconceptional syphilis is more serious for the existing pregnancy than for a later one. The fetus is always infected long before the roseola appears; infection occurs as soon as the mother has been attacked by the chancre. The most effective treatment is mer-

cury in the form of soluble salts or pills; gray oil and salvarsan have not so good an effect by far. Hereditary syphilis can only be transmitted to the fetus by way of the placenta; the spermatozoon which contains a treponema cannot fecundate an ovum. Exceptions to Colles' law are not true. Mothers who do not show syphilitic lesions are still infected, the syphilis being latent. Heredodystrophy is a consequence of syphilis, but not syphilis itself; such infants can become infected by syphilis, and it is then transmissible by the germinative cell only.—*Arch. of Pediatrics*, May, 1913.

The Open Window

Dr. W. W. Roach, Medical Inspector in the Philadelphia Public Schools, with the co-operation of teachers and parents, recently made an experiment to determine the value of cold fresh air in school rooms, which was reported in the *American Journal of Public Health*. He opened the windows at top and bottom, and kept them open throughout the winter. The room was shut off from the heating plant of the building except on the occasional days when the temperature fell below forty-five degrees; but children wore extra wraps and had frequent drills and exercises.

In another room, the pupils were of the same grade and of about the same number, but the room was heated and ventilated according to the usual methods. The pupils in both rooms were normally healthy children from the same kind of homes, so that the test was as fair as possible.

From September 30 to December 20, 1912, the pupils in the open window room gained in weight on an average about two pounds, those in the warm air room a trifle less than one pound. The pupils in the open room kept wholly free from colds and were much more regular in attendance than the others. They were also more alert, free from day-dreaming, quicker to learn, needed less review work and were better behaved. In health and happiness, in development both of mind and body, the children of the room with open windows had a clear advantage over the others.

As a result the School Board has authorized the establishment of open window classes in several other Philadelphia schools.

(Note—In commending this observation, which corroborates similar experiments in Chicago and elsewhere, we wish to add a caution against too literal imitations in cold climates. It is well to observe carefully the limit of 45°F., and it is possible that good ventilation with higher temperature might be found even more desirable.)

THERAPEUTIC NOTES.

Uric acid, put up in ampoules with adrenalin and cocaine, is advised by Rosenberg of Berlin, for gout, with the idea of producing antibodies which shall stimulate phagocytosis.

Salvarsan, 1 part; water, 20; glycerin up to 150, has been successful as a swab treatment for old syphilitic glossitis by Allport of England.

Oil of cinnamon, cloves and peppermint, $\frac{2}{3}$ c.c. in capsule, iv. i. d., each oil being used for a day in succession, is the suggestion for the treatment of coryza, by French of Woolwich.

Ivy poisoning is said to be relieved by the juice of the leaves of *impatiens fulva*, snap dragon, or jewel weed, sometimes erroneously called lady slipper. This is a common plant of shady, damp places, found near poison ivy and hence tending to corroborate the old idea that the antidote of a poison was always at hand.

The arrow poison of the Columbian (South America) Indians has been found by W. Casper and A. Loewy, to consist of the secretion of a small frog. It paralyzes the animal, which is then killed. The flesh is not poisonous. The ordinary edible frog, *rana esculenta*, is said to produce a similar poison. It is possible that this may contain a valuable therapeutic suggestion.

For hyperidrosis, sponging with 1-2 per cent. of formalin solution or a dusting powder of 1 part of salicylic to 8 parts of boric acid, is recommended. Six milligram doses of agaricin, repeated every hour for three doses may be used if local measures fail. To neutralize the odor of perspiration, especially in the axillae and perineum, a saturated solution of sodium bicarbonate, which may also be allowed to dry upon garments, is efficient.

For third degree burns, Ohleyer recommends a thick covering of magnesium carbonate, the adherent crusts being removed in dressings, with 1:100 solutions of lysol.

Major H. C. French of England, advises freezing chancroids with ethyl chlorid spray, making three applications and then dressing with iodoform.

Kolipinski claims good results from 1-2 per cent. solutions of nickel sulphate applied on compresses, for alopecia areata.

Warner's Safe Cure is said to consist of fluid extract of gaultheria 2 ounces, same of gentian, sarsaparilla, taraxacum, calumbo, each one ounce; same of podophyllum and buchu, each one-half ounce; spirits of juniper 1 pint; white sugar $\frac{1}{4}$ pound.

RESEARCHES ON THE INFLUENCE ON THE GASTRIC JUICE BY ADSORBENTS. Inaugural Dissertation by Fr. Wilhelm Greef of

Gottingen, 1911. Adsorbents are colloid, amorphous, substances with great surface area, adsorption consisting in the fixation of gaseous or dissolved substances without complete, homogeneous penetration of the molecule, which latter constitutes absorption. The principal adsorbents in common use are the various kinds of charcoal, kaolin, bismuth, iron hydroxid and neutralon. In a bibliography going back to 1834, he reviews the more or less empiric demonstration of the value of various adsorbents in diarrhoea, dysentery, etc. (fixation of bacterial toxins), arsenic and various alkaloid poisonings, in removing coloring matters in the sugar industry, organic analysis, etc.

He discusses various investigations into adsorption, including phenomena of surface tension. The less the concentration of a substance in solution, the more complete its adsorption. For acids, the nature of the adsorbent has very little influence, the fixation varying inversely as the concentration and directly with the molecular weight, at least for organic acids. Michaelis and Ehrenreich demonstrated that a marked difference in electric potential favors adsorption and that this difference diminishes during the process. Kaolin, for example, is negative, iron hydroxid positive. Thus kaolin adsorbs only such dyes as contain basic and amphoteric acid radicles and, hence, does not act at all on eosin, which is easily adsorbed by iron hydroxid (Cf. its action as a blood stain).

Quantitative estimates of HCl are obviously more accurate than of pepsin. In order to test the action of adsorbents on HCl, solutions were prepared of half, $1/5$, $1/10$, $1/20$, $1/50$ and $1/100$ normal strength. Obviously, if each of these is titrated against the corresponding fractional alkaline solution (Na OH) any given quantity, for convenience 10 c.c., will be neutralized by an equal quantity of the latter (Methyl red used as indicator). On adding the adsorbent, it was found, according to the general principle that adsorption varies inversely as the degree of concentration in solutions (though the word *inversely* is not applicable in a mathematic sense), that the amount of alkaline solution required for neutralization of the remainder of the HCl in solution, diminished proportionately, as the solutions used decreased in strength. Of course, if no adsorption had taken place, 10 c.c. of any given strength would be required to neutralize acid solutions of the same amount of any corresponding strength. (It should also be noted that in each group of experiments, the same absolute quantity of adsorbent per 10 c.c. of acid solution was used though it is implied that enough was used in each case to secure the maximum adsorbent effect).

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No. 2

ORIGINAL ARTICLES

No responsibility is assumed by the Journal for the opinions of contributors of original articles; nor for methods of expression nor errors in proof reading, excepting for articles in a foreign language contributed for translation. The right is reserved to decline contributions on account of bona fide lack of space; or because they do not bear on practical medicine and surgery; or because they would fail to interest or would give offense to the majority of subscribers. The expression of minority views or reasonable and courteous criticism of the views of others is not considered offensive.

Plastic Splints For General Use, With a Special Description of the Application of Leg Splints

BY J. J. BUCHANAN, M. D.

Surgeon to Mercy Hospital, Pittsburgh, Pa.

EIGHTEEN years ago the writer devised a plastic splint of Crinoline, plaster of Paris and Lintine, which has been used continuously since that time by his surgical colleagues and himself, in the Mercy Hospital, to the almost entire exclusion of all other splint materials.

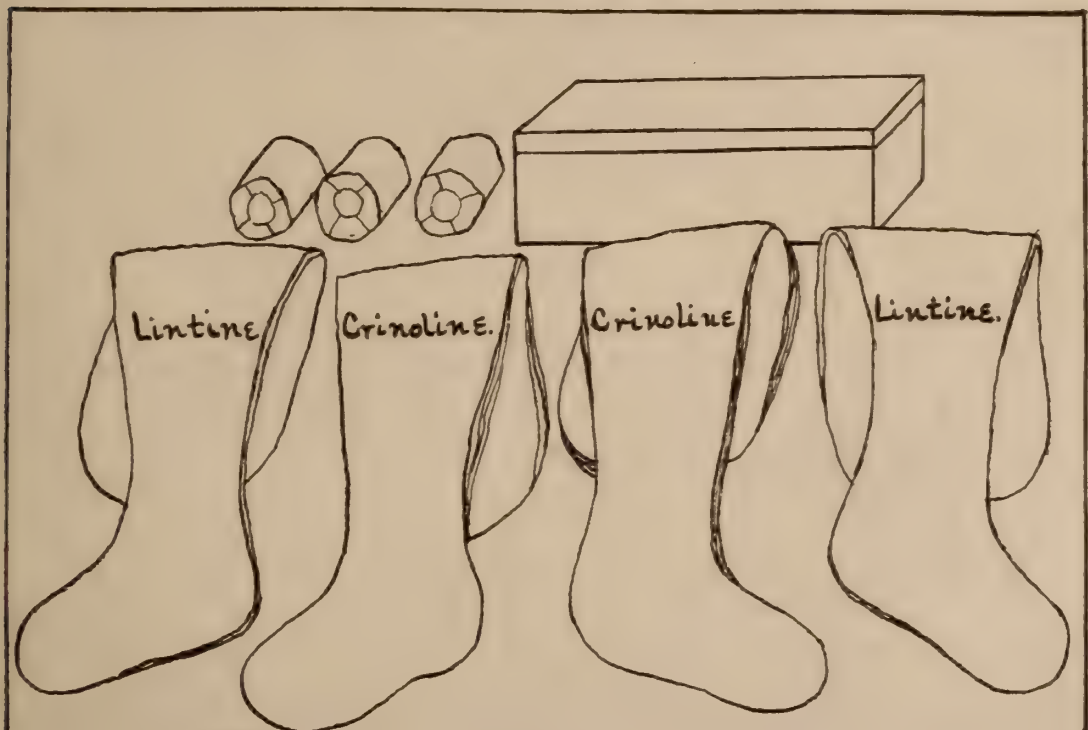


Fig. 1

In the year 1896, he described the splint at the Harrisburg meeting of the Medical Society of the State of Pennsylvania, and this description will be found in the transactions of the Society for that year (pages 59 and 60.)

A description of the splint is also to be found in Dr. Nicholas Senn's work on "Practical Surgery" (pages 547 et seq.) published in 1901.



Fig. 2

Notwithstanding the publicity given the method by the work of Professor Senn, the writer considers that the present additional

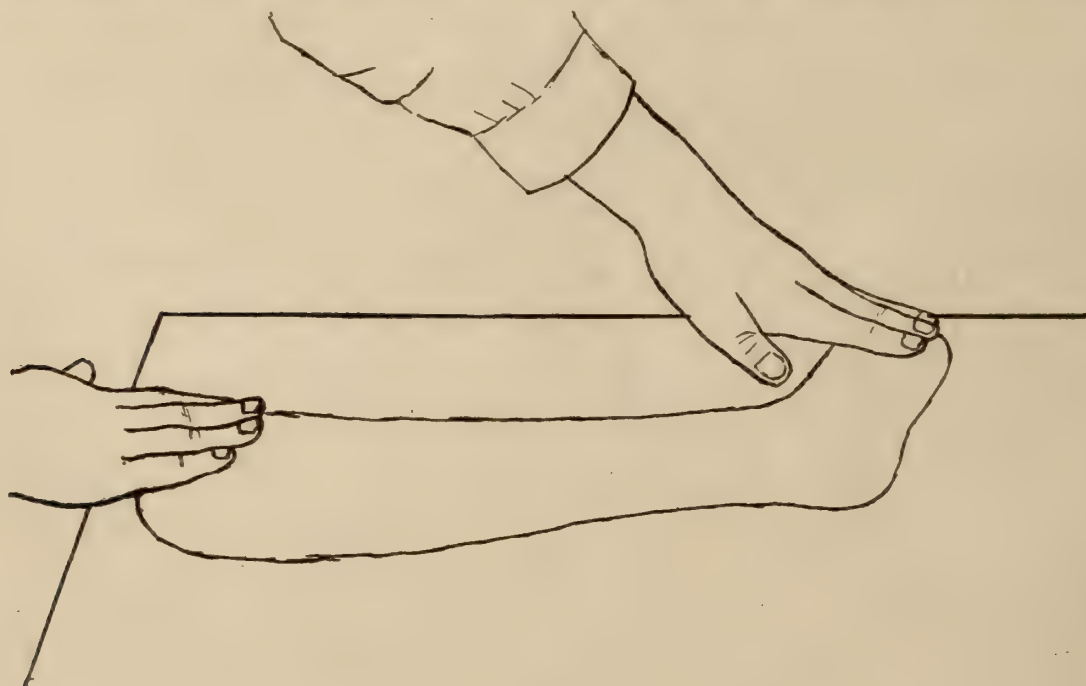


Fig. 3

publication is justified as an effort to bring the advantages of this method of making splints to the notice of the profession.

The illustrations herewith given are of leg splints only, and they are the only ones kept constantly in reserve; but in fractures of the arm, forearm and femur (in the last, only where consolidation is advanced); in immobilization of joints for inflammatory and tubercular conditions and after excision of joints, reduction of dislocations and in other joint injuries, the employment of splints of the same kind in appropriate shapes has been practically invariable.

The splint proper consists of a body of six to eight layers of crinoline, into the meshes of which plaster of Paris has been rubbed, with a facing and back of lintine, which is a thin, smooth-



Fig. 4

surfaced sheet of compressed cotton. Leg splints are in such daily requirement and are of such uniform size that it has been found desirable to have considerable numbers of them in readiness at all times; but splints for other parts are made to order in exactly the same way, of such size and shape as the case may demand.

Preparation of the Splint.—Cut the required number (6 to 8) of pieces of crinoline of the size and shape of the splint desired. Cut two pieces of lintine of the same size and shape. Lay one of the crinoline shapes on a table and rub plaster of Paris well into its meshes. Lay on it exactly another crinoline shape and rub its meshes full. Repeat this till the requisite number of layers of crinoline are together.

Figure 1 shows two sets of the manifold crinoline shapes, four lintine shapes and three gauze bandages with a tin container. These are all the materials necessary for the application of

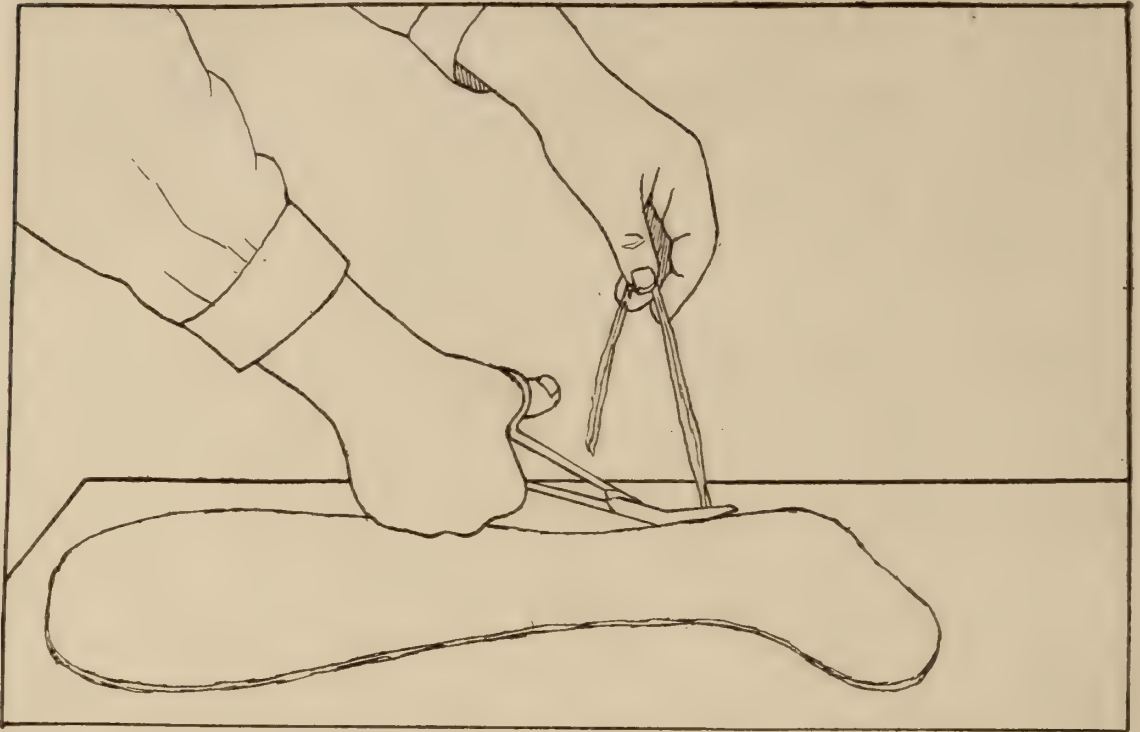


Fig. 5

two lateral leg splints and, kept in the box to exclude moisture, they may be kept indefinitely, ready for instant use. This outfit is advised for private practice on account of its portability.

Application of the Splint.—Remove the manifold crinoline shape from its box and hold it in its folded condition in a basin



Fig. 6

of water, taking care to shake out as little as possible of the plaster either in handling or in soaking. When the bubbles have ceased to rise, lift the crinoline gently from the water and

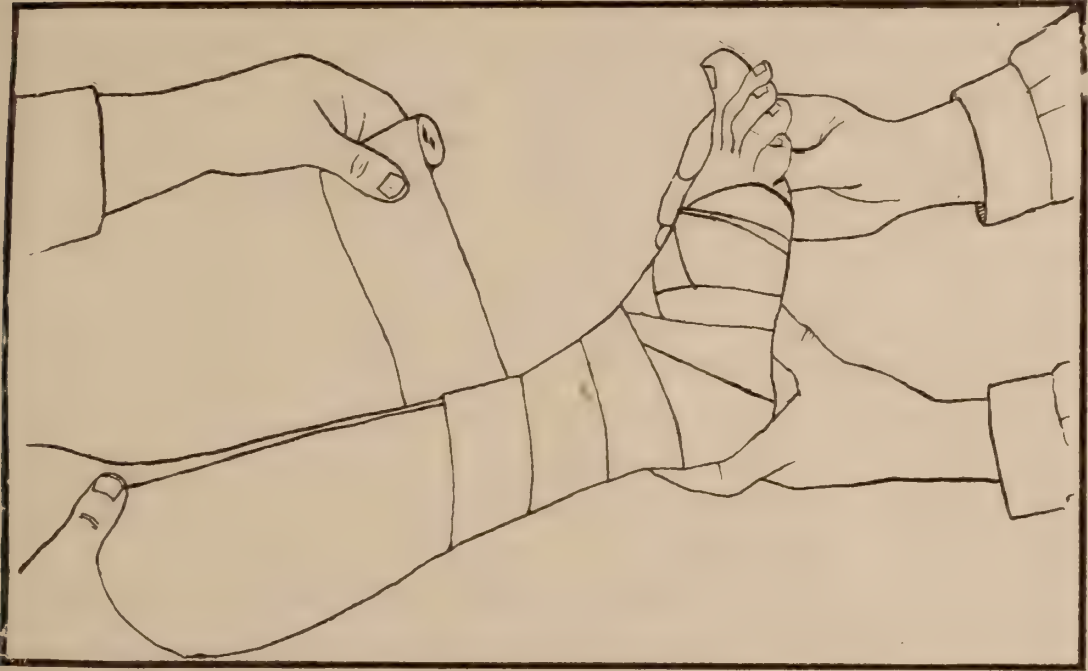


Fig. 7

squeeze out the excess of water, as shown in Figure 2. Spread the shape on a table with the hands, as shown in Figure 3, removing all wrinkles and causing it to resume its original form.

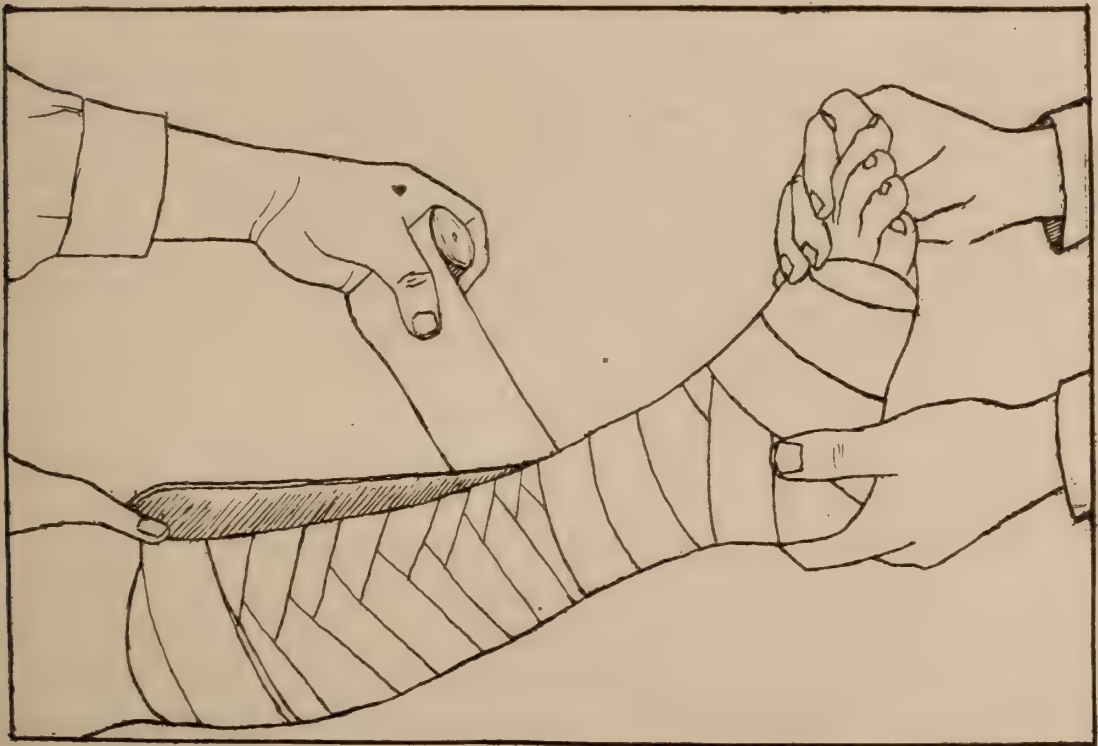


Fig 8

Lift the plastic shape from the table and lay it on one of the lentine shapes, as shown in Figure 4, pressing it down at every part with the hands. Lay another lentine shape on the plastic shape and press all well together with the hands. Trim uneven edges, as shown in Figure 5.

The splint is then ready for application to the limb and, as shown in Figure 6, is as pliable as a wet wash-rag, and back, front and body are as one piece. The limb is held in the desired position, the splint applied accurately to all its inequalities, without any padding whatever, and bound to the limb with a smoothly applied roller bandage, as shown in Figure 7.

The second splint is made and applied to the other aspect of the limb with a second roller, as appears in Figure 8.

The splints, of course, soon harden, and when removed they are light, firm, clean, accurately fitting and easily reapplied. With their use, pressure sores are unknown and pads both unnecessary and inadvisable.

When the splints have been removed for any purpose, they should be reapplied in the same manner and order. Redness over a salient point indicating pressure should never be met by padding, but by making a fenestra in the splint opposite the reddened area. This is very rarely necessary. When the part shrinks, so that the splints fit imperfectly, new ones should always be applied. This is often necessary in the later course of leg fractures.

GASOLINE INTOXICATION. J. G. W. Johnson, *Can. Med. Mo.*, reports 42 cases among workers in a tunnel with a gasoline engine. The symptoms were those of the stimulant or narcotic stage of ether anaesthesia. All recovered promptly. Carbon monoxid poisoning was excluded. A few years ago one of our subscribers and his chauffeur were overcome in the same manner, but without serious results, while repairing an automobile in a barn.

PROPHYLACTIC ANTITYPHOID VACCINATION IN THE FRENCH NAVY. Chantemesse reported before the Academie des Sciences, January 20, 1913, that not a single case of typhoid fever has developed among the men vaccinated with his antityphoid vaccine, numbering 3,107, notwithstanding exposure to infection and similar conditions of work and recreation. Among the men who had not been vaccinated 542 cases occurred from April 5 to the end of December, 1912, or about one per cent.—*Trib. Med.*

The Duties of Examiners in Lunacy

BY CAREY D. DAVIE

Surrogate of Cattaraugus County, Salamanca

DURING the benighted conditions of the Middle Ages, when the empire of the human intellect was limited, and the creations of distorted fancies accepted as facts, the insane were regarded as victims of evil spirits, struggling under the displeasure of an omnipotent power. At times they were treated as outcasts and a menace to society. At other times regarded with mysterious veneration as beings under the special protection of an over-ruling providence. The alleviation of their afflictions was outside the realms of medical skill; their comforts and safety to no extent the subject of legislative action or judicial concern; their recovery depended entirely upon unassisted natural causes; their physical protection merely a matter of accidental environments; but, when the shadows of that superstitious period were dispelled by the light of intelligent investigation, this unfortunate affliction of humanity became the subject of thoughtful observation, and, during recent years, some of the brightest intellects have been industriously employed in the study of the care, treatment and welfare of the insane. In every civilized country the greatest solicitude is now manifested for the comfort and protection of this unfortunately afflicted class. Public sentiment has undergone important modifications; common sense has superceded prejudice, and intelligent methods have displaced superstitious beliefs and customs. Not long ago the so-called lunatic asylums were regarded with horror, and not entirely without reason, for they were merely shambles or herding places for those deprived of reason, where the sole element of control was physical force. These institutions are now replaced, in name and in fact, by the State Hospitals for the Insane, presided over by physicians and alienists of experience and ability, institutions built, equipped and maintained at public expense, and from which none are excluded in consequence of poverty; where the first effort in every case is to effect a radical cure, if possible, and, failing in that, to ameliorate the conditions and minimize the effect of the mental disorder upon the comfort and duration of the patient's life.

In the treatment and custody of the insane, the hearty co-operation of the medical and legal professions is demanded, but the functions of these two professions radically differ. It is the province of the physician to correctly diagnose the disorder, de-

termine its cause, carefully investigate the antecedents, which throw light upon the general pathology, and eradicate, not only the abnormal mental condition, but the exciting cause. With these matters, the lawyers and courts have no concern. It is well said in Bucknill's Treatise on "Insanity and its Legal Relations," that "To the lawyer it matters not *how* the seed of insanity is sown, nor the growth of the plant, except as confirmatory evidence that the plant is there; with him the sole question is its existence, its degree and its influence upon the conduct, and is, therefore, a moral and not a medical consideration." It is the results of the research and investigation of the medical profession which afford a basis of action for judicial determination. It is impossible for the law to reach just and proper results without the intelligent information furnished by the physician. The physician lays the foundation upon which the courts erect the superstructure; the physician establishes the premises from which the law reasons and reaches its conclusions. Consequently, the responsibility of the medical expert is two fold; first, to his patient in securing the best possible results of his treatment, and, second, to the courts in furnishing such professional information as will lead to proper adjudication regarding the custody, liberty and property rights of the patient, and his relations to society, civilly and criminally.

Under the provisions of the Insanity Law of this State, the evidence upon which the committing magistrate acts is the certified expression of opinion of examiners in lunacy. In most cases, such certificate is the only proof of the mental status of the party whose commitment is sought; while the law now requires that notice be served upon the patient of an application for his commitment, yet it is very rarely the case that any one appears in his behalf. Such being the case, the examiner should appreciate the supreme importance of his functions in this connection; he has to deal with human liberty. He stands as a sentinel at the approach to our Insane Hospitals, admitting those whose mental condition requires skilled treatment and observation, and turning those back who are offered merely as a sacrifice to improper motives. In the performance of his duties he should never overlook the blacker side of human nature, nor underestimate the force of motives springing from selfishness, avarice, illicit relations and affections, restlessness and impatience under the restraint imposed by the rules of society and common decency. He should always have in mind that there are a multitude of reasons for seeking the incarceration of persons within the walls of the hospital other than honest desire to benefit and protect them.

An instance has come under my observation where a husband finding his wife to be an inconvenient incumbrance seizes upon a slight and absolutely harmless delusion on her part as a pretext for securing her commitment. The local poor authorities, in their zeal to protect their municipalities from financial liability for the maintenance of harmless and inoffensive paupers, sometimes find it politic to transfer responsibility to the State by securing their commitment to the State institution. The examiner should always be on his guard against attempts to make use of him in his official capacity to secure a commitment where the same is absolutely unjustified. Such a preceeding is an outrage upon the patient and may prove disastrous to the examiner. The difficulties the examiner encounters are often serious and perplexing. There are occasionally instances where the manifestations of mental disorder are so marked, violent and uncontrollable as to preclude the possibility of a mistaken diagnosis but in many cases of the most dangerous types of insanity, the patient is quiet under observation, cunning and crafty in disguising his symptoms, skilled in deceit and dissimulation, requiring the greatest patience and ingenuity on the part of the examiner to develop and bring to light the latent fires of wrecked mentality. The objective symptoms of disturbed mentality are as varied as the hues of the kaleidoscope. When the physician begins investigation in the hazy realms of mental disorders, the most thoughtful good judgment is required to guard against erroneous conclusions. No two cases are alike. Each case presents its own marked peculiarity. In one instance he discovers the existence of hallucinations, where, as described by Taylor, "The patient experiences sensations which are supposed by him to be produced by external impressions, although no material object acts upon the senses at the time." An illustration of this condition was recently presented in a contested will case tried before the writer. The testatrix was an old lady who entertained and strenuously adhered to the belief that a circus with all its varied paraphernalia was encamped in front of her residence; she heard the music of the band, laughed at the antics of the clown, admired the elephants and tigers, and insisted that the paper on the walls of her room was flaming circus posters. In all other particulars she was rational; she had an intelligent understanding of her business affairs and it was held that she possessed testamentary capacity. In such a cause, the examiner in lunacy would hardly have been justified in certifying that the patient should be committed. In another case the testatrix had become possessed of the delusion that she was a burden to her family, and in consequence began considering self-destruction. She made inquiries

as to the amount of arsenic required to take one's life and shortly thereafter was found dead, having committed suicide by hanging from a rafter in her barn. Here a timely examination and commitment would have averted the calamity and possibly have eventually lead to a recovery. In another case a man who had for some time been afflicted with arterio-sclerosis made his will and shortly thereafter threw himself in front of an approaching railroad train and was crushed to death. In the investigation of this case, the interesting question arose as to what extent the fact of suicide was evidence of insanity, and an experienced alienist, called as a witness, expressed the opinion that self-destruction was not in and of itself absolute proof of insanity, citing instances where persons perfectly sane had taken their lives and deliberately and intelligently planned so to do. Again the examiner will encounter the manifestations of delirium, incoherent speech, extreme watchfulness, purposeless action, inability to fix attention and concentrate the thoughts, changing hallucinations, delusions and illusions. Again he will observe a patient with that loss of expression and marked vacuity which indicates the existence of dementia, or he encounters those deplorable conditions described by Kirchoff as "Depression marked by a feeling of misery in excess of what is justified by the circumstances in which the individual is placed," and denominated melancholia. Again he observes the manifestation of extreme hilarity and exultation where the patient entertains the belief that he possesses great wealth, power and social influence, is perfectly happy and contented, never suicidal in his tendencies, but homicidal in his designs against those who interfere with his plans and ambitions. Again his attention is called to the fact that a merchant is annoyed by the operations of a kleptomaniac. A community is terrorized by the acts of a pyromaniac, one afflicted with corpolalia shocks his associates with his obscenity and profanity; the conduct of the victim of morphiomania, or dipsomania, humiliates his friends and family. The subject of nymphomania becomes a social outcast; or the examiner is startled at the fiendish ingenuity of the crime of some paranoiac. In judicial procedure, where the question of mental responsibility is at issue he encounters the defence of acute delirious mania, religious or erotic paranoia, hypochondriac, epileptic, hysterical, temporary or emotional insanity and numerous other form of mental aberration, chronic or acute. In one famous murder trial, after the jury had had the case under consideration for a considerable time and were unable to agree, it returned to court and asked for instructions. "Your Honor," said the foreman, "we are all agreed that the defendant was entirely sane immediately be-

fore the shooting and that he was entirely sane immediately after, but we are unable to agree upon the question of his sanity at the precise instant that he fired the shot." Here the defense was temporary insanity and experts had testified as to the mental condition of the defendant and created a situation where the court in answer to the juror's inquiry was obliged to say: "Gentlemen of the Jury, it is incumbent upon the prosecution to convince you beyond a reasonable doubt as to the defendant's sanity at the time of committing the act. If a reasonable doubt exists in your minds in that particular the defendant is entitled to the benefit of such doubt." The jury retired and very soon returned with a verdict of "Not Guilty."

I have thus referred to a considerable extent to the difficulties which the medical examiner encounters for the purpose of substantiating my contention that no physician, however extensive his general practice, should assume to act as an examiner in lunacy without possessing special and technical qualifications along that line.

In some respects our insanity law is lax, insufficient and dangerous. The protection of personal liberty was regarded by the framers of the Constitution as of sufficient importance to demand a special guaranty. In our criminal jurisprudence one charged with crime, where the question of mental responsibility is involved, has the protection of every legal presumption and can be convicted and incarcerated only upon the unanimous verdict of twelve men. The alleged incompetent person cannot be deprived of the control of his property except through the instrumentality of proceedings instituted for that purpose, the filing a petition, appointment of a commission, summoning a jury of not less than twelve or more than twenty disinterested persons, taking of evidence, a finding of incompetency signed by at least twelve of such jurors, yet under the provisions of the insanity law one may be deprived of his liberty simply upon the certified opinion of two examiners in lunacy, probably qualified and honest but possibly not, approved of by a judge who may regard his functions in the premises as purely formal and who relies entirely upon such certificate. The apology is sometimes made for a careless and superficial examination of the mental condition of the patient that no harm can ensue because the alienist in charge of the institution to which the commitment is made will detect the fact if no insanity exists and refuse to accept the patient, but such an excuse is neither professional nor complimentary to the examiner, nor one affording protection in the forum of the examiner's honest conscience, nor in a court of law when he is sued

for false imprisonment. The experts in charge of our larger institutions can hardly be expected to immediately examine every incoming patient and at once determine the question of his sanity. It often requires several days' observation to ascertain the actual mental condition of a patient and the authorities in charge of the institution have the right to and necessarily do rely upon the presumption that the examiners, in making their certificate, are properly qualified and that they have carefully performed their duties. The statute permits any physician of three years' standing to legally qualify as an examiner in lunacy even if he has never had an insane patient and is absolutely unable to differentiate a case of secondary dementia from one of a harmless hallucination. The statute should be amended in such a manner as to require a reasonable amount of experience in the observation of mental disorders before a physician may be permitted to qualify as an examiner in lunacy, and the method of procedure in securing the commitment of a patient should be more thoroughly safeguarded; at least the same degree of care should be required in a proceeding to deprive one of his liberty as of the custody of his property. The statute will be the subject of criticism so long as its provisions render it possible to secure the incarceration of an individual who may be entirely sane, simply upon the certificate of two dishonest or incompetent examiners and the order of a careless committing magistrate.

After making the examination and determining the patient's condition, the next duty of the examiner is to prepare the proper certificate. This should be carefully done. Many certificates are so carelessly prepared as to be absolutely farcical. The statute requires that the examiner in addition to a statement of his opinion regarding the sanity of the patient, should also set forth the facts upon which such opinion is based. I recall an instance where the only fact recited in the certificate was that the patient, a woman, had "called her husband a scoundrel and a Democrat"—a very unlikely combination. In another case the fact was very carefully recorded that "she said nothing during our examination"—hardly satisfactory evidence for judicial action. Again it was recited that "the patient acted queer." If every person who sometimes acts queerly is a subject for the insane hospital, we might not find any committing magistrate or examiner at large. These conditions are largely the result of absolute carelessness in the preparation of the certificate. They indicate a belief on part of the one certifying "that anything is good enough for a lunatic." They show want of appreciation on the part of the examiner of the serious importance of the duties

they are performing. The statute requires that sufficient facts be stated in the certificate to enable the committing magistrate to verify the opinion of the examiner. A compliance with these requirements is jurisdictional and a certificate which does not comply with the statute affords no protection to either the examiner or the judge when the legality of the commitment is challenged. It is not a comfortable situation for the examiner to be called upon to defend himself before a jury against a claim for large damages in an action for false imprisonment.

These suggestions are made, not in any sense of pedantry, but simply as a matter of caution to the examiner and magistrate in the performance of a most important duty.

SUBSEQUENT HISTORY OF 1000 PATIENTS WHO RECEIVED TUBERCULIN TESTS. Johanna Gelien and Louis Hamman, *Johns Hopkins Hosp. Bull.*, June, 1913.

Table 1—The present condition of 632 patients classified from three to four years before:

	Sought	Re-ports	Well	Not im- proved	Became Tuberculous		Death not from tuber- culosis
					Living	Dead	
Not tuberc..	188	110	72-65%	31-28%	3- 2.7%	1-0.9%	3-2.7%
Doubtful.....	429	258	176-68	57-22	7- 2.7	9-3.5	9-3.5
Probable.....	78	47	29-61		11-23	7-15	
Tuberculous ..							
Stage I.....	35	21	13-62	4-19		3-14	1-4.7
Stage II.....	79	47	15-32	10-21		22-47	
Stage III..	191	149	11- 7	10- 6.7		128-86	

Table 2—The after history of patients in relation to the Tuberculin tests:

		Became tuberculous	Did not become tuberculous
Not tuberculous	Reacted to 1% conjunctival test.....	0- 0 %	1-100%
	Reacted to 5% conjunctival test.....	0- 0	5-100
	Reacted to the cutaneous test.....	1- 3	31- 97
	Negative to conjunctival test.....	4- 3.8	100- 96
	Negative to cutaneous test.....	3- 3.8	75- 96
Doubtful	Reacted to 1% conjunctival test.	4-11	33- 89
	Reacted to 5% conjunctival test.....	3- 7	41- 93
	Reacted to the cutaneous test.....	9- 6.7	125- 93
	Negative to conjunctival test.....	9- 5	168- 95
	Negative to cutaneous test.....	7- 5.6	117- 94
Probable	Reacted to 1% conjunctival test.....	11-69	5- 31
	Reacted to 5% conjunctival test.....	5-26	14- 74
	Reacted to the cutaneous test.....	17-46	20- 54
	Negative to conjunctival test	2-17	10- 83
	Negative to cutaneous test.....	1-10	9- 90

A Case of Urticaria Pigmentosa.

BY JOSEPH SPANGENTHAL, M. D.,

Buffalo

URTICARIA, Pigmentosa, or Xanthelasmaidea, is a disease of the skin of infrequent occurrence.

While the name Urticaria Pigmentosa is still applied to this disease, Xanthelasmaidea would be more applicable, as suggested by Tilbury Fox, since urticarial wheals are a concomitant and not the essential element of the disease proper. A review of cases reported would suggest an urticarial element, but the lesions which are at first urticarial, soon develop into elevated areas of various sizes, of a pale to deep yellow color, which bear the resemblance of Xanthoma to a remarkable degree. Moreover, these latter lesions are more or less persistent, and are unlike the evanescent character of the wheals of urticaria.

According to the pathological investigations these lesions are in structure of wheal formation, with edema, and deposit of pigment in the epidermis; and a cellular infiltration which is composed of mast-cells. These mast-cells are considered characteristic of the disease, and probably the essential feature.

As for its symptomatology, we may advantageously divide the disease into three stages:

First Stage—Period of activity, during which crop after crop of the lesions appears in the form of urticaria.

These lesions differ from the usual urticaria in their persistency, often remaining for weeks or months, and not being influenced by treatment.

They gradually flatten, forming nodules, of a yellowish color, and, as stated, appearing similar to Xanthoma.

This active period of development may last for several years and slowly drift into the secondary stage.

Second Stage—During this period of two to five years, the malady remains more or less stationary. There are deposited in the skin pigmentary stains of a purplish or brownish color.

Third Stage—There are no new lesions developing, and the pigmentary spots gradually disappear. The time of the entire clearing of the skin may take several years. In exceptional instances the spots may remain during the life-time of the individual.

A case of Xanthelasmoidea recently came under our observation.

This little infant girl, aged 8 months, enjoying robust health, furnishes the following history:

Family History—The maternal grandmother and uncle suffered when young with Eczema (?) The father enjoys excellent health. The baby's sister, aged 5 years, is very nervous. The mother states that she, herself, has always been highly neurotic.

One year previous to the birth of the child the mother developed a lump in the right breast, which several physicians assured her would terminate in carcinoma, and advised an immediate operation. This information caused endless worry, and in order to avoid an operation the mother took medicines constantly until the birth of the child.

From the third month of pregnancy, on account of much pain, she took medicines for relief. The mother states: "My system was full, and you might say I was steeped in medicine."

Baby's Previous History—She has never suffered from any other illness. She has always been breast fed. At the age of 7 weeks a general redness appeared, most noticeable about the face. This redness has continued to grow worse.

Present Condition—Baby is well nourished and of a happy disposition. Its weight is about 25 pounds.

Skin Manifestations—From head to foot the skin is covered with lesions of bright red wheals and macules, so that there is no part of the body exempt. The face is somewhat swollen from edematous infiltration. Around the forehead there is some brownish pigmentation. The palms and soles are covered with small nodules of a salmon color. These vary in size from a pin head to a coffee bean. They are solid, irregular, flattened on the upper surface, and appear similar to Xanthoma. The child's back is covered with tumefied lesions of all shapes and sizes. The least irritation of the skin will cause wheals to appear instantly, and dermatographia is well marked.

Of special interest in this case to which it is well to direct our attention, are the neurotic element in the mother and sister, and the continuous and excessive medication on the part of the mother previous to and during gestation.

595 Lafayette avenue.

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YEARLY VOLUME 69

SEPTEMBER, 1913

No. 2

Typhoid Fever

This is the season at which typhoid fever is particularly likely to be encountered. For some years we have held the opinion, which is becoming less heterodox, that the seasonal prevalence of typhoid is not due to strictly natural phenomena but to the relative increase of exposure to miscellaneous, unguarded and sometimes obviously contaminated water supplies, during the vacation season. While the possibility of conveyance by ice, milk, fresh vegetables, flies and other insects and by the soiled clothing and hands of "carriers," or by analogous routes from acute cases, latent or recognized, deserves practical consideration, evidence supports the older belief that the principal source of typhoid is drinking water into which typhoid bacilli have entered, usually from faeces and urine—the latter being infected in about 20 per cent. of samples examined.

While the possibility of typhoid-like fevers from virulent and comparatively massive infection with colon bacilli and various strains of bacilli intermediate between the colon and the true typhoid bacillus must be considered, and while no one will advocate the discharge of sewage into potable water, it is well to place clearly before the medical profession, if not the laity, the fact that typhoid arises only from typhoid and not from sewage contamination in and of itself. We understand that, except in experiments with intentionally infected water, the typhoid organism has been identified in water, only once or twice. Warnings as

to the state of the water supply are occasionally published in which it is said that typhoid bacilli are present. Accuracy in such warnings is important, not only because, in general, it is a good rule to tell the truth, but because, such warnings, repeated, and without the consequences predicted, tend to establish a state of skepticism and carelessness on the part of the public. Inaccurate statements emanating from one place obviously tend to produce inaccurate wording of newspaper warnings in others and thus to discredit conservative statements by other boards of health.

Excepting in an experimental sense, typhoid is almost if not quite the nearest approach to a purely human disease. Hence, the danger of infection is enormously multiplied by the occurrence of even a small discharge of contaminated material from a single human case into a water supply and, conversely, is greatly diminished—and theoretically by geometric and not arithmetic progression—by even a moderate diminution of existing cases. The relative extent of an epidemic of typhoid is inversely proportionate to the bulk of the aggregate water supply and, hence, usually, to the size of the community itself, although a small community drawing from a large river or lake would show only the same proportionate incidence as a large one. It is, of course, impossible to give anything approaching accurate percentages of incidence with relation to population, but the following illustrations have been supported by experience many times: When the community consists of a single family and the water supply of a well, the leakage into the well of even a small amount of the discharges of a single patient, may produce an epidemic of 100 per cent.; when the community consists of a few hundred or thousand persons and the water supply consists of springs, a small lake or creek, one patient may set up an epidemic of 10 per cent. to 50 per cent.; in large cities, drawing water from a river or lake capable of supplying many times the population, even if the contamination is notoriously high, we seldom encounter for a whole year a typhoid mortality of more than 200 per 100,000 population, which corresponds to an incidence of 2 per 1000 on the basis of a 10 per cent. average mortality or of 4 per cent. on the basis of a failure to report half the cases. It should be remembered that even 4 per cent. of incidence for a large city is high, and that it covers an entire year, whereas the preceding figures apply to single epidemics covering a few weeks.

To take a purely local example, we believe that the improvement in the water supply of Niagara Falls is already having a marked influence on the general incidence of typhoid. This city had, for

many years a high typhoid incidence, although not excessively so as compared with other cities. But, somewhere near a twelfth of its population was being immunized against further typhoid infection yearly and the more intelligent part of the population was being warned by precept and example, constantly, against using the municipal water supply in a raw state. Hence, it is fair to assume that the infectivity of the water supply was considerably greater than was indicated by the typhoid mortality. About a million persons visit Niagara Falls annually, mainly in the summer, when thirst overcomes caution. While it is impossible to present any statistics, it is obvious that many of these visitors must have become infected and must have originated new centers of infection in their own homes. The same process of education and sanitary inforcement that has diminished the danger of the Niagara Falls water has been operative at thousands of points more or less sought by tourists or travelers on business. A quarter of a century ago there was scarcely a large city or place of interest in Europe and comparatively few in America which did not have a high typhoid incidence, according to modern standards. Today, one can drink the water of almost every such place in western Europe with a feeling of security and one can count on his fingers the cities of a hundred thousand population or more in the United States in which the typhoid death rate exceeds 50 per 100,000. In most of such cities the typhoid death rate is at or below 20, and probably at least half of this is due to other sources than the drinking water of the city itself.

Based on purely bacteriologic evidence of the survival of typhoid bacilli in natural environments, and, for the moment ignoring carriers, one might almost say that if all cases of human typhoid could be done away with or absolutely isolated for a year, the utmost carelessness with regard to sewerage and water supplies could be indulged in, with impunity. We hasten to disclaim the advocacy of such a course but, from the academic standpoint, the proposition is interesting. Moreover, there is good archaeologic evidence that such a condition existed in America prior to its settlement by Europeans and there is no historic evidence that typhoid existed until it was introduced from Europe.

We do wish, however, to emphasize the optimistic contention that, just as soon as the incidence of typhoid—or any other infection—has been diminished past the point at which a superabundance of possible sources of infection exists, every case prevented, by any means and anywhere, tends, on the average to produce a further reduction of incidence not of one but of several cases and that this diminishing effect proceeds by geometric pro-

gression. There is considerable evidence that we have already reached the point at which carelessness in sanitary matters fails to produce its logical results, because carefulness at some other point has prevented a potential source of infection.

On the other hand, the less typhoid occurs, the greater danger is there of a massive epidemic if a single focus of the disease develops, on account of the lack of immunization by pre-existing high incidence. This fact was well exemplified in the Spanish-American War. Indeed, in many regiments it appeared that almost every man who had not previously had the fever, contracted it in camp. But, fortunately, recent experience with artificial immunization has shown that this result can be avoided, to a large degree. This immunization, important from the military standpoint and from that of the individual, is even more important from that of the whole population for it prevents the development of foci in which typhoid bacilli are multiplied in numbers and increased in virulence.

Most of the cities and towns of our territory have fairly good water supplies. In many instances we believe that these water supplies are even safer than appears from typhoid statistics. It is of the utmost importance to know not only how many cases of typhoid occur in a given city or town, but what proportion of these cases occur in residents and what proportion are due to local factors and what to imported infection. Statistics of this nature carefully collated by practitioners from study of cases and intelligently grouped by central authorities have a value that can be expressed in dollars and cents. For example, there is no need for a city to spend a million dollars to improve its water supply simply because, as a matter of humanity, it is treating grave cases of typhoid brought in from other places or because its own citizens drink from contaminated wells at picnics or come back from vacations with typhoid incurred by the sanitary deficiencies of summer resorts.

Some years ago our Associate Editor, Prof. Pel, gave a most significant reply to a question as to why malaria was so uncommon in Holland, in spite of the marshy nature of so much of the ground. He said that the anopheles was common but that malaria had been practically exterminated by quinine administered to patients. At first thought, this application of the "one man at a time" doctrine, seemed far fetched. But a little thought will convince the most skeptic that it is good doctrine in medicine as well as in religion. The same principle applies to typhoid. Each physician, in attendance on even a suspected case of typhoid, must realize his grave responsibility not only to the patient but

to the community. He is guilty of complicity in manslaughter if he does not rigorously carry out details of prophylaxis which shall render that particular case innocuous to the community. One may go farther and say that the local health department is at fault if it does not, in some way, provide means for determining with scientific accuracy, when the period of quarantine may be concluded.

This brings us to the consideration of typhoid carriers, too difficult a subject to be discussed here.

The Collegiate Year in Medicine

Referring to our notice in the July issue that the University of Buffalo would make this requirement beginning with the session of 1914-15 and would establish its own preparatory course, the report of the joint committee of the Association of American Medical Colleges and of the A. M. A., (*Journal of the A. M. A.*, June 21, 1913), deserves careful attention. Of the 109 medical schools giving degrees, 32 already require two or more years of college study and several the entire college course. Six more will require two years college study by 1915. Twenty-four others require one year of college study and seventeen will have this requirement in 1914. Twelve states will have required at least one year of college study of medical matriculants of the class of 1918 (entering the medical school in the fall of 1914 and five already require two years of college study of this or even earlier classes.

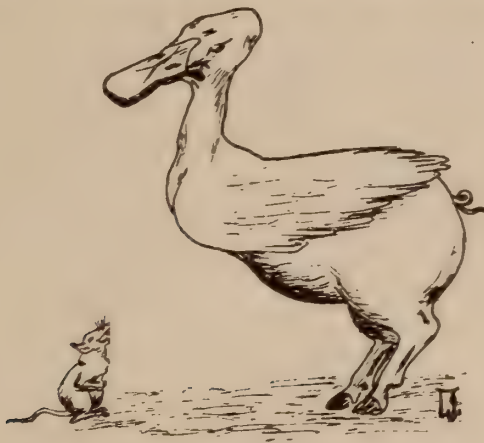
As we have received some criticisms of the unreasonableness of requiring more than the high school course, these statistics are of value in showing that it is "a condition and not a theory that confronts us." It should be clearly understood that the criterions of the past do not apply to the present. It is no reflection on those of us who have gotten our education in the little red school house or who are self-educated, that modern requirements impose standards in accordance with facilities freely furnished at present and available only to a small minority of the youth of a generation or two ago.

It is held by some that higher requirements militate against the poor boy whose ambition is to enter a profession. This is undoubtedly true, but, so far as our own profession is concerned, the opinion is nearly unanimous that, unless standards of license are raised, the poor boy will become still poorer as a physician

and that only the rich can afford to enter upon a medical career. Solely as an economic necessity to regulate supply in accordance with demand, some process of selection must be applied to those who desire to enter upon medical practice. If anyone can suggest a fairer or more appropriate, or more practical method than by raising the educational standards, we shall be glad to hear it.

Personally, with growing experience, we appreciate more and more the seriousness back of George Ade's comic story of the high brow who, in course of time, mislaid his college diploma. Sometimes we become disgusted with formal systems of education and still more so with their products, and regret the passing of the little red school house and the self-educated man. But, as a nation, we have committed ourselves definitely to the policy of free education, of increasing degrees. There are always individuals to whom existing standards do not apply and, with the increasing tendency toward formal requirements and system, such individuals must suffer. But, this fact must be remembered, that, speaking broadly, the type of man who, in the past, educated himself by the light of a pine knot, who held a book in one hand and drove a team or worked a bellows with the other, is, except by slight modification to conform to modern developments, the same that now struggles, somehow—and on the whole with less effort and greater effectiveness—to obtain the institutional training required by law, or by rules of employment.

The Ugly Ducklings of the Medical Dialect



A visitor from Mars would, probably, see nothing more strange in the creature pictured above, than in many others of perfectly normal development. To us, reasonably familiar with terrestrial life, it is plainly a ridiculous impossibility. A zoologist, even in the presence of an actual specimen of such a creature, would be able to point out exactly why it never could have evolved by

any conceivable natural process and, could, without hesitation, pronounce it to be the work of a faker.

The drawing, by Dr. Joseph S. Lewis of Buffalo, has been reproduced to point a moral. This peculiar hybrid is exactly comparable to a large number of mongrel words which are being attached to the medical vocabulary. The great majority of the population, having no more knowledge of the evolution of languages than the putative visitor from Mars has of our terrestrial processes of zoologic evolution, regard these words as strange, only because they are encountered for the first time and are impressed with their size and grotesque appearance. Unfortunately, however, there are a good many thousand individuals in this country alone, well enough versed in the languages from which modern medicine is deriving its new terms, to recognize that *duodenitis* (to take one of many hundred possible examples) is just as ridiculous as *speedometer* or *butterine*. A simple home-made tool piece of furniture or word, however rough, can be used without apology. But, when one strives for display and elegance, he must be very sure that what he uses will stand the criticism of the expert whose sneers will eventually penetrate to the ignorant persons who, at first were impressed with the supposed elegance of his affectations.

The use of technical terms is not, in itself, an affectation. As some psychologist has well said, "Words are the nails on which we hang new concepts." If we could not crystalize new concepts into relatively brief words, all progress would be greatly hampered. Never-the-less, it is seldom necessary to apologize for stating a fact in plain language and the use of a technical term borrowed from a foreign source, requires the utmost care as to its correctness. Unfortunately, the man who is most unwilling to say that he has "Hitched up" some organ that has dropped from its normal position, is the very one who fails to realize that while it is not incorrect to call his operation an "—orrhaphy," this term lacks the significance of "—pexy." *Speculum* ought to be technical enough for anybody but, if not, let us speak of procroscope instead of rectoscope, rhinoscope instead of nasoscope, etc. If we are too modest to refer to the "neck of the womb," we can, at least, speak of cervical endometritis and even accent the first word on the first syllable, or we can say trachelo-metritis—which is not beyond criticism, *but*, rather than call it endocervicitis, let us go to the limit of the speedometer man and call it endoneckitis.

Very recently, there has been formed a league for preserving the purity of the German language against foreign intrusions.

A couple of generations ago the educated Greeks, realizing the decadence of the modern language, set to work systematically to weed out similar intrusions and to restore the language as nearly as possible to its ancient form. So thoroughly has this work been done that a foreigner, with only a moderate familiarity with classic Greek, can read the modern language and can scarcely detect its difference from the ancient. It was stated, as an example, that in a certain newspaper article published within a few months in Athens, there were only three or four words which Xenophen could not have understood, and one of these was "soda water fountain." English is a combination of languages rather than a language. For instance, while by descent, an inflected language, it is almost comparable to the uninflected, monosyllabic Asiatic languages. While theoretically low German, its Saxon words are in a hopeless minority and it has incorporated in recognizable form, almost every native Latin word pretty directly, as well as through the French. It has almost entirely lost the power of forming its own new words and resorts, now, largely to Greek for its technical terms, especially in medicine and allied arts. This being the case, let us take as our motto "Porcus totus aut nullus," and forego the pleasure of coining our own words with such alloys from other languages as suit our individual tastes. There is, indeed, in financial circles, a strong prejudice against private mints, which we might well share. And, since Greek has become, by general consent, the standard of coinage, why not constitute the learned Greeks themselves, the masters of the mint?

Editorial Announcements

GROWTH OF THE JOURNAL. Two years ago the regular issue of the JOURNAL consisted of 92 pages, including covers. During the past year the total has been 100 pages. Beginning with the present issue the total will be further increased to 108 pages, representing an increase of a trifle over one-sixth in two years. The circulation has increased a little over 50 per cent. in two years. The loyalty of our subscribers is shown most convincingly in the fact that the most considerable item in the loss of subscriptions has been on account of death. As many readers have asked how they can assist the JOURNAL, we mention the following needs: 1. Prompt and brief communication of news items, personals, obituaries, etc., especially outside of Buffalo; 2. Assistance in reviewing the great mass of current literature received, especially American monthlies in lines outside the editor's immediate professional interests and knowledge, and journals in

Japanese, Italian, Swedish and Greek. For obvious practical reasons, assistance of this nature is almost confined to residents of Buffalo and it requires fairly regular attention. 3. Missionary work to increase our subscriptions and advertising. A good word in passing is all that is asked in these matters.

POSTAGE STAMPS. We receive a good many foreign postage stamps. Any physician is welcome to these if he or any member of his family is interested in philately.

BILLS FOR SUBSCRIPTIONS were inclosed in the August issue. Please look for yours if you have not already found it and give it prompt attention, especially if there is any error. There are three reasons for asking for promptness. The first is too obvious to mention. The second is that the standing of a periodical with the Postoffice depends upon its paid-up subscription list. The third is the enormous saving of time when anything can be dismissed from attention as finished.

ADDITION TO STAFF OF JOURNAL. Dr. H. I. Davenport of Auburn, a graduate of Johns Hopkins of the class of 1905, has accepted an invitation to join the staff of Associate Editors. Pending the appointment of a representative for Syracuse, he will, so far as possible, supply us with items from that city as well as the immediate vicinity of Auburn. Dr. Davenport is especially interested in bacteriology and pathology and has a laboratory for Chemic and Microscopic Diagnosis. We take great pleasure in giving him a hearty welcome.

THE DEAD CENTER. We try to be fairly up-to-date in all departments of the JOURNAL, especially Society Meetings, Topics of Public Interest, Personals and Obituaries. Unfortunately, we pass a dead center between the twentieth and the last of each month while the JOURNAL is being printed. A very brief and important notice can usually be inserted by displacing other matter in type, up to the twenty-fifth. Otherwise, copy received after the twentieth of one month cannot appear until the issue of the second month following.

TOPICS OF PUBLIC INTEREST.

PROLONGATION OF LIFE. The medical profession is often accused of a lack of practical accomplishment. The following statistics, compiled by Dr. John S. Billings from Census statistics, show results whose genuineness can scarcely be questioned and for which the medical profession may rightly claim most of the credit. Comparing the mortality tables of New York City for

1879-81 with those for 1909-1911, to insure fair averages, the average expectation of life is found to have changed as follows in thirty years:

	1879-81	1909-1911
At 5 years of age or under.....	41.0 years	52.0 years
Between 5 and 10 years.....	46.0 years	51.0 years
Between 25 and 30 years.....	32.0 years	34.3 years

Unfortunately, at later years, the average expectancy shows a slight diminution, ascribed to the prevalence of renal disease, arterio-sclerosis and cancer, all of which are due more or less to the increased strain of life and, in our opinion, to the fact that 30 years ago the persons who passed the age of 30 and subsequent higher ages, included a disproportionate number of those who had survived the various diseases, now prevented or cured, by virtue of inherent vitality and strength.

ANESTHESIA AMONG THE INDIANS. The anterior history on ancient anesthetic agents and methods is, with some difference, similar to the works of other authors and writers on this topic; but the following research of the "Anesthesia Among the Indians," is original of Dr. J. M. G. Kukay, as will be shown in this course.

It is very difficult to write on any subject of remote times without a manuscript or some other information to give some light on the writer's investigation, excepting mummies, trephined skulls and the revelation of some far descendants of the Incas Indians.

It is not possible to know the date and name of the first that discovered anesthesia in civilized Europe; Is it possible to know this in the savage region of America prior to Columbian time? The following brief history is the way taken by the writer in his research:

In the year 1904, I have a few pages of this work, and anything in regard to this subject was a point of investigation and study for me. When visiting our "American Museum of Natural History" in New York, my attention was called to the collection of Indian Mummies, buried with a sack of coca leaves, and the trephined skulls, brought by Mr. E. G. Squier from the burials of the Incas Indians at Chiara Valley, Peru.

My first step in this research was a visit to Peru, which I did one year after. Once in the Valley of Yucay, I began to ask the natives if they knew the use of coca among the Indians, but no one knew anything about it. Finally I got the address of an Indian's descendant, by name Senor Juan, who lived several miles away, and I went to his camp, accompanied by a native.

Senor Juan was about 90 years of age (he don't know it). After I told him the object of my visit (the writer is familiar with the Spanish language), he says: "We don't use books or any writing, but we keep all the records in the "Quipu" in which, by the color of the cord, length, number of knots, and kind of it, etc., we record the important incidents, and by memory, the non-important ones." "Can you tell me what for your forefathers were buried with coca leaves?" I asked. "Certainly," he answered. "Before the Spaniards came we were more happy and rich, and when a 'Cacique' (Indian Chief) or some member of his family dies, the relatives put with many other things the holly leaves." "What other use have they for these leaves?" "Oh, many," he said. "We use it even today as a tonic, to relieve pain, and chew it as you do tobacco." "Can you explain the reason of the perforation of the skull?" "Of course," he answered. This was done to the son or son-in-law of the dead 'Cacique' and was a religious ceremony. If the son lived after the operation he became cacique, but the most died after cutting the square hole in the head." "Do they use any coca leaves in the operation?" I asked. "Yes; plenty. The 'Curanderos' (Indian physicians) mixed in one concave stone a large quantity of leaves and water, and with the other stone, like a pestle, triturerated them very fine to the consistence of syrup. Then they gave slowly to drink until they do not move, and the curanderos start the operation, which takes sometimes a whole day; and all the time during the operation the men, women and children pray with their prayer sticks."

"What do they do in case that the man feels pain?" "Well, they give him more stuff to drink." "Did they die before the operation was over on account of the syrup?" "Very few. The curanderos have very much experience in handling the coca, and they know the danger by the color of the skin."

"Have you seen any of such operations?" I asked. "No; they were used when the Incas domained this country, or in times when no christian inhabited here." "How do you know all their customs among your people?" "Easy. Some by memory from my fathers, grandfathers, etc., and others by old 'Quipus.'"

After all this caudal of information the writer went to Surco, Peru. In this place he compiled more information on the use of coca leaves; between the different uses was that they gave coca leaves to the Indian women to eat in labor time. But nobody gave so complete and important information as Senor Juan.

By this revelation, and the evidence from the museum, the writer was completely convinced that coca leaves were used to

produce Narcosis and Anesthesia by the Incas Indians of Peru in performing surgical operations, by means of knives made from copper, bronze and stone.

No one who knows the works of Dr. von Tschudi, Mr. E. G. Squier, and the writer's research, will doubt this statement.

DEPARTMENT OF AGRICULTURE ADVISES THAT MILK BE PASTEURIZED AT LOW TEMPERATURES. In order to determine the best way of pasteurizing milk so as to kill the disease germs and yet not give the milk a cooked flavor or lessen its nutritive value, the Department of Agriculture, through its Dairy Division, has been conducting a series of experiments, treating milk at different temperatures and for different lengths of time. According to the report on these experiments in Bulletin 166 of the Bureau of Animal Industry, when milk is pasteurized at 145°F. for thirty minutes the chemical changes are so slight that it is unlikely that the protein or the phosphates of lime and magnesia are materially changed.

Moreover, from a bacteriologic standpoint, pasteurizing at low temperatures is found to be more satisfactory than at high temperatures. When low temperatures are used the majority of bacteria that survive are lactic acid organisms which play an important part in the normal souring of milk. When milk is efficiently pasteurized at high temperatures, the bacteria which survive are largely of the putrefactive kinds, and milk so treated if kept for any length of time has a tendency to rot instead of sour. From the standpoint of economy, the technologist of the Dairy Division finds that pasteurizing at 145°F. calls for about 23½ per cent. less heat. A similar saving of ice occurs.

The Department, therefore, recommends that "When market milk is pasteurized it should be heated to about 145° Fahr. and held at that temperature for thirty minutes."

TRANSMUTATION OF ELEMENTS. This expression, the hope of the ancient chemists, the object of scorn of modern ones, has, to some extent, been justified by recent studies of radiant energy. Collie and Paterson have shown that the bombardment of hydrogen by cathode rays produced helion, until recently regarded as a non-terrestrial element though common in the spectra of the sun and other stars. Apparently helion is a polymerized hydrogen, four atoms of hydrogen forming one of helion. Ramsay has continued the process, combining helion and oxygen to form neon; hydrogen and sulphur to form argon and hydrogen and selenium to form krypton. As has been alluded to previously,

copper has been "degraded" into lithium. However, it is only fair to consider that most of these experiments, especially the majority which deal with radium and allied radio-active substances, apply the term *element* to rare and relatively unfamiliar substances. While it is entirely possible that the term *element* may come to have a significance quite different from its etymology and its present—or very recent—conception, and that we shall come to regard our whole present list of elements or most of them as merely polymeric forms of one or a few real elements or as compounds highly resistant to ordinary methods of disintegration, it is also quite as possible that both the conception of the word *element* and the essential elementary nature of most of the substances at present so considered will remain. In the latter case, we shall merely have to admit that chemists have been too hasty in giving elemental designations to a few unfamiliar substances.

MEDICAL SCHOOLS MERGED. The Atlanta College of Physicians and Surgeons and the Atlanta School of Medicine have been united under the title of the Atlanta College of Medicine, the original name of a school founded in 1854 and merged in 1888 with the Southern College to form the College of Physicians and Surgeons.

CONSOLIDATION OF MEDICAL SCHOOLS. Williamette University and the University of Oregon have merged their medical departments.

MEDICAL CLINICAL COURSE AT THE HOTEL DIEU, PARIS. Prof. A. Gilbert, under the auspices of the University of Paris, announces a course of clinical practice and application of laboratory methods. Sept. 22—Oct. 7, at 10.30 A. M. and 3 P. M. Applicants should inclose an order for 100 Francs (about \$20.00) to M. Deval, Chef de Laboratoire, Hotel Dieu, Paris. In March a similar course will be given on recent ideas on maladies of the Liver, Pancreas and Spleen.

TEN POLICEWOMEN have been assigned to duty in Chicago.

60,000 HORSES were eaten in Paris in 1911. The ordinary retail price is 3½ cents a pound. The meat is somewhat dry and insipid but resembles beef. Smoked and shaved, it appears and tastes like a superior quality of dried beef. It contains slightly more glycogen than most fresh meats.

ISOLATION HOSPITAL DE LUXE. Chicago will shortly have a hospital in which each patient will have an individual room, separated by a glass wall from visitors.

THE OTHER SIDE OF THE MASHING EVIL. A man has recently been released after serving twenty of a thirty days' sentence for street "mashing." It was proved that he had been condemned on perjured testimony. The editor of the *Critic and Guide* comments that no one but a drunken man will persist in annoying a woman who objects to his attentions and that a decent woman will not seek the notoriety of suit on such occasion. The plain fact exists that the evil of mashing exists because there are plenty of women who will accept the acquaintance of a stranger, not to mention the street walkers who court them. Some years ago, two lads started out to make a record. In a perfectly respectable though not very high-class residence district, their advances were accepted by twenty-seven girls, none of whom appeared to be immoral in the ordinary sense. In Europe, one sees men make advances to women in the most matter-of-fact way and the women, if respectable, shake their head with equal calmness, and there the matter drops. In this country, the wave of interest in or rather of open discussion of sex topics, has unavoidably caused some hysteria and judges should not forget that the desire to be in the limelight, rather than injured purity, is apt to be the origin of charges of accosting. And it should not be forgotten that there are times and places and classes or localities in which local custom excuses or even demands greetings among strangers. The legal precedent that a man may never speak to a woman whom he does not know, and vice versa, without liability to arrest, would lead not only to inconvenience and opportunity for blackmail, but, worst of all, to a state of sexual self-consciousness, which is a possible predisposing cause of sexual immorality. It would be well to limit the criminal recognition of "mashing" to plain and flagrant cases.

A PREMARITAL HEALTH CERTIFICATE for males will be required in Oklahoma.

A SPECIAL ROOM AND OPERATING EQUIPMENT FOR THE TREATMENT OF DENTAL DISEASE IN THE TUBERCULOUS has been established through the generosity of the Coterie, womans' society of Buffalo, with the co-operation of the Dental Department of the University of Buffalo. It will be in charge of Wm. J. Roche, D. D. S.

The Educational Report of the A. M. A.

For many years the *Journal of the A. M. A.* has published, during the month of August, an elaborate report on medical education. This year's report adds a new feature—a diagram showing the period of existence of every medical school in the country from 1765 to the present, so arranged as to indicate mergers. We note that one school represents six original institutions.

Number of Schools.—High water mark was reached in 1906, when there were 162 schools, 130 of them regular. The maximum number of homeopathic colleges was in 1900 and 1901—22. The maximum number of eclectic colleges was in 1901—10. The last of the “physio-medical” and “non-descript” colleges passed away in 1910. At present there are 91 regular colleges, 10 homeopathic and 5 eclectic, a total of 106. However, excluding colleges whose discontinuance is announced in the near future or already reported, and excluding schools, mostly if not entirely departments of universities which do not confer degrees, but merely give the first two years in connection with collegiate departments, the real total for economic purposes is only 95.

Classes of Schools.—Class A plus, entirely satisfactory, number 22 (with the above mentioned exclusions), Class A, satisfactory except in minor details, number 33. Class B, needing general improvement, number 18, and Class C, requiring complete reorganization, 22. Three of the last class, however, are not recognized by their own state board as fitting men for a license, and while the aggregate number of students at schools of the first three classes is very nearly proportionate to the number of these schools in the total, the Class C schools, which comprise 25 per cent. of the total, have only 10 per cent of the students. Four of the five eclectic schools are included in Class C. The early extinction of the Class C schools, except for a few which will undoubtedly improve, is to be expected. For practical purposes, disregarding schools numerically and otherwise weak, medical education is almost entirely confined to about 90 schools, including 10 homeopathic and 1 eclectic.

This corresponds quite well with the theoretic estimate which we proposed last year, that the minimum economic basis for a medical school should be a million population, served by a thousand physicians, of whom about 20 would die in a year and require replacement by the annual graduating class, while the population would increase by about 1.5 per cent. a year, requiring about fifteen additional graduates, making the annual graduation 35. With a few more mergers and extinctions and the constantly

increasing population, a still larger average medical school is within sight, enabling a better economic management.

Educational Standards. Without going into details and ignoring minor qualifications, it may be said that the four-year course in medicine, with terms of satisfactory length, and a minimum matriculation requirement of a high school education, has already been achieved. Six states already enforce a matriculation standard of two years of college study, five of one year. Each of these groups will be increased by one next year. Thirty-two medical schools already require two years of college study for matriculants, twenty-one require one year. Twenty-one more will require one year, beginning with the session of 1914-5 and seven will require two years in 1914-5 or 1915-6. These groups are duplicated to some extent, but it is a safe estimate that, within two years, there will not be more than fifteen schools in the country at which a man can matriculate without at least one year's college study beyond the high school course. A trifle less than 20 per cent. of this year's graduates in medicine hold bachelor's degrees.

Number of Graduates, Students, etc.—High water mark was reached in 1904, with 28,142 medical students and 5,747 graduates. There has been a fairly steady subsidence of this flood to the minimum of this year (since 1880-90) 17,015 students and 3,981 graduates. Last year the respective figures (previous low mark for students but not for graduates) were 18,412 and 4,483. Unless there has been a very uneven fluctuation in matriculation, which seems unlikely, it is probable that next year will show still better figures, for, while the number of graduates this year was 502 less than in 1912, the number of men left in the upper three classes, after Commencement last year, was 13,929, while this year it is only 13,034. Even if the rapid elevation of matriculation standards has a reactive influence in hurrying men into medicine, instead of a direct depressing effect, there can be no significant increase, but probably will be a decrease, for at least four years more, during which the weeding out process will have time to exert an influence.

Relation to Practicing Physicians.—There is presented a table of physicians and population, similar to that which we published in January, 1913, except that the A. M. A. Directory gives 142,190 physicians, whereas, our table, based on Polk's Directory, gives only 129,002. The Business Address Co. of New York at present carries a list of 139,585. The ratio of physicians to population varies considerably in different states, with an average of 1:713 or 1:640, according to the tables followed. We are

inclined to believe that the lowest of these lists is about 10 per cent. high, if only physicians actually in practice to any economically appreciable degree are considered. To be conservative, it may be held that there are 120,000 physicians to a present population of about 97,000,000, giving an approximate average clientele of 1:800. This is much more favorable than has been supposed. It is an obvious paradox that the optimist in regard to the amelioration of an over-crowded profession should calculate mortality by the pessimist's statistics of practitioners, but it is fairer to base it on the low figures, since retired and non-practicing physicians are already removed from competition. In a profession of the age limits of physicians, the average mortality is somewhere about 2 per cent. per annum (about 13:1000 for the ages 25-34; 19:1000 for the ages 35-44; 38:1000 for the ages 45-64, and thereafter increasing very rapidly). Thus, to replace the deaths in the profession, about 2400 graduates would be needed annually. Meantime, the population is increasing at the rate of about 1,800,000 a year (a little less than 2 per cent. a year). On the same average basis of 800 clientele, this would accommodate about 2250 more graduates, making a total of 4650. This year there has been an actual shortage of 669 from this number. To put the matter in a different way, a maintenance of the present ratio of physicians to population would be represented by an annual graduation of about 4 per cent. of the number of the practicing profession, 2 per cent. to compensate for mortality, 2 per cent. to correspond to increase of population, while at present the number of graduates is about $3\frac{1}{3}$ per cent. This means a very slight amelioration of existing economic conditions—an average addition to the clientele of about one family of five persons a year. But, the tide seems to have turned.

We cannot close this article without calling attention to the enormous amount of labor represented in the compilation of these statistics by the A. M. A. and their great value. But the statistics themselves are insignificant compared with the work for the advancement of the profession, and thus, for humanity, done by the A. M. A., and by the forces which it has supported and to a large degree instituted. In less than a decade the standards of medical education have been advanced far beyond what was hoped for as a realizable reform, almost indeed to the point regarded as the ideal of idealists. We have dwelt largely on economic considerations, but these are of minor consequence in comparison with the ethical, educational and ultimately humanitarian improvements which have ceased to be dreams and have become realities. Let each reader ask himself whether he is

doing his duty in supporting professional organization and in lending his influence to the attainment of ideals in that organization.

Laws of New York, Chapter 526

AN ACT TO AMEND THE INSANITY LAW by authorizing any licensed private institution for the insane to receive inebriates for commitment and care. Became a law May 15, 1913, with the approval of the Governor. Passed, three-fifths being present. The People of the State of New York, represented in Senate and Assembly, do enact as follows:

Section 1.—Chapter thirty-two of the laws of nineteen hundred and nine, entitled “An act in relation to the insane, constituting chapter twenty-seven of the consolidated laws,” is hereby amended by adding at the end thereof four sections, which shall be known as sections one hundred and seventy-three, one hundred and seventy-four, one hundred and seventy-five and one hundred and seventy-six, to read as follows:

Sec. 173.—The judge of a court of record in the county or district where an alleged inebriate resides, or a judge of any court of record, may commit such person to any private licensed institution for the insane, in the manner hereinafter provided, upon a proper application and upon the consent in writing of the trustees, signed by their superintendent or executive officer, upon the certificates in writing made, executed and verified by at least two physicians, qualified to act as medical examiners in lunacy, showing that such person is over the age of eighteen years, and is incapable or unfit to properly conduct himself or herself, or his or her affairs, or is dangerous to himself or herself or others by reason of periodical, frequent or constant drunkenness, induced either by the use of alcoholic or other liquors, or of opium, morphine, or other narcotic or intoxicating or stupefying substances. Such certificate must further show that such person is in actual need of special care and treatment, and that his condition is such that his detention, care and treatment in such institution would be likely to effect a cure. Such certificate shall also specifically state the facts and circumstances upon which the judgment of each physician is based and shall show the result of such examination. It must appear upon the face of such certificate that each physician executing the same has made a personal examination of the person alleged to be an inebriate, and that such an examination has been made within ten days prior to the application for the commitment.

Sec. 174.—The husband or wife, father or mother, brother or sister, or the child or committee of an alleged inebriate may apply for an order committing such person to the said licensed private institution for the insane, by presenting a brief petition containing a statement of the facts because of which the application for the order is made. Such petition shall be accompanied by the certificate of the physicians and the consent of the trustees as prescribed in the preceding section. Notice of the time and place of making such application shall be served personally upon the alleged inebriate at least three days before the date therein specified upon which the application will be made. A copy of the petition shall be served with such notice. The judge or justice before whom such application is made shall, in his discretion, direct the service personally or by mail of a like notice upon the husband or wife, father or mother, or next of kin, of such alleged inebriate. At the time and place mentioned in such notice or at such other time or place as the judge or justice may designate, said judge or justice shall proceed to hear the testimony introduced for and against such application, and may examine the alleged inebriate if deemed advisable. Such judge or justice may, in his discretion, require proofs in addition to the petition and certificates of the physicians. If, from the facts ascertained upon the hearing, the proofs produced, and the petition and certificates presented, the judge or justice shall determine that such person is an inebriate, or that he is so addicted to the use of opium, morphine or other narcotic or intoxicating or stupefying substance, and his condition is such that his detention in such institution would promote his interests and improve his health, he shall grant an order committing such person to such institution, to be detained therein for a period not exceeding twelve months, or for such period less than twelve months as may be necessary in the judgment of the physician in charge of such institution for the proper treatment and cure of such person, or until discharged therefrom prior to the expiration of such period, as hereinafter provided. The physician in charge may grant a parole to a patient not exceeding six months.

Sec. 175.—A person committed pursuant to this act or any relative or friend in his or her behalf may, within thirty days after any order of commitment is granted as provided in the preceding section, apply to a justice of the supreme court other than the justice making the commitment for a review of such order. Such justice shall thereupon cause a jury to be summoned as in the case of the proceedings for the appointment of the committee for an insane person, and shall try the question of the inebriety of such person in the manner provided by law for the proceedings for

the appointment of such committee. If the verdict of the jury be that such person is an inebriate, such justice of the supreme court to whom such application was made shall certify that fact and commit such person to the care and custody of the said institution. Proceedings under the commitment shall not be stayed pending an appeal therefrom, except upon an order of a justice of the supreme court made upon notice and after a hearing, containing a provision for such temporary care or confinement of the alleged inebriate as may be deemed necessary. Upon the refusal of a judge to grant an application for the commitment of an alleged inebriate he shall state his reasons for such refusal in writing, and the person making the application may apply to a justice of the supreme court in the manner specified in this section where an application is made in behalf of the alleged inebriate, and a commitment may be had after an appeal by a jury as provided herein.

Sec. 176.—A person who has been committed to such institution is entitled to a writ of habeas corpus upon a proper application made by him or her or by any relative or friend in his or her behalf; upon the return of such writ, the fact of the inebriety of such person and the reasons for his or her further detention in such institution shall be inquired into. The superintendent or executive, or the medical officer in charge of such institution, or any proper person, may be sworn and examined, as to the mental and physical condition of such person. If it appears upon such hearing that such person may properly be discharged, the judge or justice before whom the hearing is had shall so direct; but if it shall appear that the condition of such person is such as to render further treatment desirable, such person shall be remanded to the care and custody of such institution.

Sec. 2.—This act shall take effect immediately.

WATER AND ICE SUPPLIED BY INTERSTATE CARRIERS. On January 25, 1913, the Secretary of the Treasury, under authority of an act of Congress approved February 15, 1893, promulgated the following regulation regarding the water and ice furnished to passengers by common carriers in interstate traffic:

AMENDMENT TO INTERSTATE QUARANTINE REGULATIONS.

Article 3, General Regulations, is hereby amended by the addition of the following paragraph:

“Paragraph 15. Water provided by common carriers on cars, vessels, or vehicles operated in interstate traffic for the use of passengers shall be furnished under the following conditions:

“(a) Water shall be certified by the State or municipal health authority within whose jurisdiction it is obtained as incapable of conveying disease: *Provided*, That water in regard to the safety of which a reasonable doubt exists may be used if the same has been treated in such manner as to render it incapable of conveying disease, and the fact of such treatment is certified by the aforesaid health officer.

“(b) Ice used for cooling such water shall be from a source the safety of which is certified by the State or municipal health authority within whose jurisdiction it is obtained, and before the ice is placed in the water it shall be first carefully washed with water of known safety and handled in such manner as to prevent its becoming contaminated by the organisms of infectious or contagious disease: *Provided*, That the foregoing shall not apply to ice which does not come in contact with the water which is to be cooled.

“(c) Water containers shall be cleansed and thoroughly scalded with live steam at least once in each week that they are in operation.”

INSTRUCTIONS RELATIVE TO THE CERTIFICATION OF THE WATER AND ICE FURNISHED TO PASSENGERS IN INTERSTATE TRAFFIC.

Samples of water and artificial ice from each and every source of supply should be subjected to bacteriological and chemical examination at least once in every six months by the proper State or municipal health authority within whose jurisdiction the supply is obtained, or by other person or persons competent to make such examinations and whose results will be accepted by the State or municipal health authority whose duty it is to issue certificates. Each new crop of natural ice should be examined and certified before use.

The common carrier desiring a certificate of the State or municipal health authority within whose jurisdiction the water or ice is obtained should make application therefor.

After the necessary examinations shall have been made the certificate should be issued on the form supplied, one copy to be delivered to the common carrier, one copy to be forwarded to the Surgeon General, United States Public Health Service, Washington, D. C., and one copy to be retained as a matter of record and for future reference.

Whenever there is an unusual prevalence of typhoid fever, dysentery, infantile diarrhoea, or other water-borne disease in a locality from which common carriers receive water and ice,

an additional examination of the water and ice should be made and a supplemental certificate made by the proper certifying authority and forwarded as above.

DAMAGE SUIT BY STERILIZED PATIENT. Two years ago an inmate of the Outagamie Co. Asylum for the Insane, Wisconsin, was sterilized. He has regained his sanity and now, through his guardian, is suing the superintendent and the former county physician on account of the operation.

U. S. CIVIL SERVICE EXAMINATION, PROFESSOR OF PHARMACOLOGY. There is at present a vacancy in the Hygienic Laboratory, U. S. Public Health Service, Washington, at a salary of \$4,500, and similar positions may later be available. No formal examination will be held, but selection will be made according to evidence of fitness presented by candidates, who should apply immediately for Form 1312, to the U. S. Civil Service Commission, Washington, as the form must be properly executed and filed before September 15. Applicants must be under 45, must have a Ph. D. degree or show equivalent study, and must have devoted at least ten years to pharmacology and closely allied branches.. Special credit will be given for original publications of merit.

LAY CONTROL OF OPERATIONS. The Olean Common Council on August 18, failed to pass an ordinance providing for a board of physicians of twenty years' experience, who should examine all patients on whom it was proposed to perform an operation. The committee to whom the proposed ordinance had been referred made a somewhat sensational report, charging that many operations were performed for financial reasons. We are glad that the majority of the Council were sensible enough to vote against such a measure. It is very questionable whether such a local ordinance would be sustained by the courts and obvious that if sustained, it would lead to many vexations and possibly to opportunities for venting professional hostility and for black mail. For instance, it is difficult to define the word operation in accordance with the probable intent of the proposed ordinance. Imagine a patient with an aching and hopelessly decayed tooth waiting for the examination of the committee of physicians of twenty years' experience—not in dentistry—or a similar delay before lancing a boil. But, where there is much smoke, there is some fire. Similar complaints and suggestions crop out in various places, from time to time. So far as we have personally observed, the furor operandi is due rather to ingrowing profes-

sional ambition and unilateral skill than to mercenary motives, but the results are equally bad. And the whole problem is so easily solved! All that is necessary is a reasonable disposition to share grave responsibilities and to acknowledge the value of the opinions of others than one's self. Imagine a competent, experienced physician, in the limited sense, essaying a difficult operation. Unless the circumstances were such as to preclude the possibility of securing expert surgical aid within the necessary time such a man would be universally condemned. Excepting acute, uncomplicated cases of traumatism—granting that they really are uncomplicated—almost every major operation invokes problems in visceral physiology, nutrition, elimination, etc., which deserve just as skillful attention as the purely surgical details. And, in many other instances, there is room for a broad consideration of the best means of therapy. We have personally experienced the harrowing sight of an inexperienced operator slashing into the abdomen, losing his nerve and falling back on the interne and an equally inexperienced medical man. And the memory of that experience is not softened by the necropsy which showed no apparent indication for operating at all. We have, in anticipation, felt what it must mean to operate, realizing one's incompetence, but realizing also that the absolute impossibility of obtaining surgical aid necessitated giving the patient the only chance. But the memory of this experience is assuaged by the fact that the dilemma was solved by the favorable course of the case without intervention. If all operators could realize that the neglect of matters which they consider of minor importance or which they do not realize at all, is the exact counterpart of a major operation performed by one who has no surgical skill, there would be no excuse for freak legislation to control operations by license.

THE BINGHAMTON STATE HOSPITAL graduated eleven nurses in July.

THE VANDERBILT UNIVERSITY MEDICAL COLLEGE, in spite of rumors to the contrary, has decided that Andrew Carnegie's endowment of a million dollars is sufficiently aseptic to accept. This is a proper action. In fact, we would almost go so far as to say that the only money solicited for education and benevolence on a large scale should be that raised by equitable taxation and what has been called "tainted."

THE ASSOCIATION OF MEDICAL INSTRUCTION OF THE HOSPITALS OF PARIS will give a series of conferences at the Charity Hospital, October 15-31, three hourly lectures being given each afternoon, beginning at 3.30. The topics and the lecturers will represent various branches of medicine.

PERSONALS.

Announcements of removals, travel, and other matters of interest are requested. Please report any errors in the listing of any physician, in the State and other directories that we may co-operate with the State Society in securing a correct list of physicians.

Auburn City Medical Society elected Dr. Geo. W. Greene, President, Dr. O. B. Swayze, Vice-President, Dr. L. Belle Richens, Secretary-Treasurer, for year 1913-14.

Dr. T. M. Laurie of Auburn left August 4 for a three weeks' auto trip to include Long Island, the Berkshire and Green Mountain regions.

Dr. M. L. Seccomb of Auburn is spending a month in the Adirondacks.

Dr. Ellen R. Spragge, Buffalo, 1888, is located at 926 Academy avenue, St. Louis.

Dr. Charles G. Levesconte, Buffalo, 1888, of Kingscove, Bonavista Bay, New Foundland, writes us of a steamboat trip to attend a confinement case.

Dr. James Tyson, emeritus professor of medicine, University of Pennsylvania, recently passed the 50th anniversary of his graduation in medicine. The Northern Medical Association of Philadelphia presented him with a loving cup.

Dr. John M. Garratt announces the opening of his offices at 52 North Pearl St., Buffalo. Hours 8-11 and 1-3. X-ray diagnosis and treatment, High frequency and allied currents, comprise his special interests.

Dr. Maud J. Frye of Buffalo, spent part of August in the Adirondacks.

Dr. T. J. Hogan has moved from Attica to 29 Main street, Lockport.

Dr. G. W. E. Goodell has moved from Bridgeport to Wayland.

Dr. A. A. Jones of Buffalo sailed for Europe late in July.

Dr. Douglas P. Arnold of Buffalo has gone to Europe for a year's post-graduate study.

Dr. Mary B. Wetmore of Buffalo has moved her office and residence to 273 Woodlawn avenue.

Dr. Charles Meine of Germania, Pa., is postmaster of that town.

Dr. Jacob Goldberg of Buffalo, Chairman of the Board of School Examiners, has an interesting and conservative article on the teaching of sex hygiene to youths in *Truth* of July 26.

Dr. James S. Allen of Geneva is in Europe.

Dr. Frederick A. Hayes of Buffalo spent the first half of August motoring through the Catskills and along the Jersey coast.

Dr. A. G. Bennett of Buffalo and Dr. Wm. D. Johnson of Batavia were the speakers at the summer meeting of the Genesee Co. Medical Society.

Dr. A. E. Woehnert of Buffalo has returned from Europe.

Dr. Dewitt H. Sherman of Buffalo spent part of August in Newport and New Hampshire.

Dr. Warren W. Britt has removed his office to the residence of the late Dr. F. F. Hoyer, 32 Grove street, Tonawanda, N. Y.

OBITUARIES.

Readers are requested to report promptly the death of any physician in Western New York, or former residents of this region, or graduates of any medical school in Western New York and to call the attention of the families of the deceased, our desire to publish adequate obituary notices.

Dr. Gregory Doyle, N. Y. University, 1865, died at his home in Syracuse, July 23. He was born in Ireland, March 28, 1840, emigrated the next year, graduated in arts at Niagara University in 1860 and received the honorary degree of LL. D. from the same institution in 1898. After graduating in medicine he settled in Syracuse. He was a member of the U. S. Pension Board, 1885-89, Surgeon and Major in the National Guard, 1872-90, Health Commissioner of Syracuse, 1899-1904. He was a prominent surgeon and author of *Incidents of European Travel*, 1910, as well as a contributor to current medical literature.

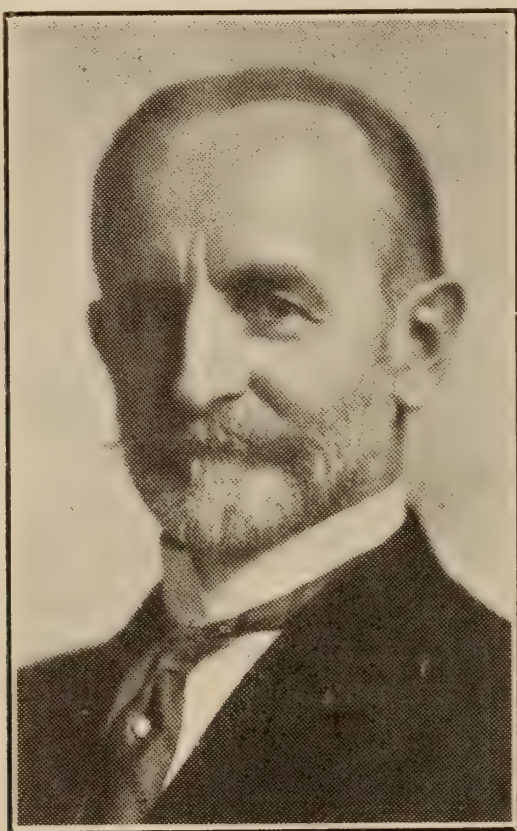
The late Dr. Louis A. Duhring of Philadelphia, emeritus professor of dermatology in the University of Pennsylvania, left most of his million dollar estate to Philadelphia charities and philanthropies, including a bequest to the University.

Dr. J. B. Neff of Port Colborne, Ont., licensed in 1878, for many years a subscriber to this Journal, and a man held in high esteem by his confreres and fellow citizens, died early this summer. We have been unable to obtain accurate biographic data.

Our August issue contained an obituary of Major Harry M. Hallock, M. D., formerly stationed at Fort Porter. After the notice was in type, we found a personal letter from him, inclosed in a report of the Government Reservation at Hot Springs, received some weeks previously but not opened. The tone of his letter was so cheerful that we are inclined to regard his shooting as accidental and not suicidal, as reported. His letter carried greetings to his many Buffalo friends.

Dr. James Samuel W. Williams, Victoria College, 1867, died at his home, Oakville, Ont., June 4, aged 72.

George Raynolds Stearns was born in Buffalo, March 20, 1853. He was graduated with honors from the Central High School in 1871 and as A. B. from the University of Rochester in 1875, being elected to the Phi Beta Kappa. He secured the degree of M. D. from the New York Homeopathic College in 1878 and was granted the honorary degree of A. M. by Rochester the same year. After a year's service at Ward's Island Hospital he returned to Buffalo, where he has since been in practice until his untimely and tragic death, August 8, due to being struck by a trolley car. Dr. Stearns was a charter member of the University Club, a member of the Buffalo Society, of the Sons of the Revolution, and, for twenty years an elder in Lafayette Presbyterian



Courtesy Buffalo Express

Church. He was a member of the various local, state and national Homoeopathic organizations and also of the Buffalo Academy of Medicine. He took an active part in the establishment of the Homeopathic Hospital and was, at the time of his death, president of the training school. He was formerly a city physician and a member of the staff of Ingleside Home. Dr. Stearns was a good example of the fallacy that a physician cannot secure the highest honor in his native community. He was an able and, in the best sense, a successful physician, a man of scholarly tastes and broad professional views which won him esteem, re-

spect and fellowship among physicians, irrespective of school practice. Among the various marks of this esteem was the presidency of the Western N. Y. Homeopathic Medical Society. He was a gentleman to the core, courteous, affable and interesting as a companion, beloved by his patients, family and intimate friends, held in affectionate regard by a great many whose acquaintance was brief and casual.

Dr. Stanley Emanuele Tron, Harvard, 1910, who had been located in Utica for several months, died June 22, aged 29, of morphine poisoning. The first reports ascribed his death to suicide, but more recently suspicion has been aroused that he was murdered.

Dr. Lucien E. Ellis, Buffalo, 1879, died at his home in Detroit July 12, aged 63. He had been a member of the School Board for 14 years.

Dr. R. S. Lavenson, formerly of Philadelphia, died in Los Angeles July 6 from tuberculosis, acquired during research work.

Dr. W. T. Linn died at his home near Pana, Ill., July 28. He was a native of Ohio. He had practiced medicine for over 75 years. He left 62 grandchildren and 53 great grandchildren, and was reputed to be the oldest man in the state, 108, but recent statements by relatives show that he was 98.

SOCIETY MEETINGS.

Brief reports and announcements of meetings of societies of Western New York and of those of general scope are requested from secretaries. Copy should be on hand by the fifteenth of each month. Full transactions will be published at cost of composition.

NEW YORK AND NEW ENGLAND ASSOCIATION OF RAILWAY SURGEONS. The twenty-third annual session of the New York and New England Association of Railway Surgeons will be held at the Hotel Astor, New York City, on Wednesday, October 22d, 1913. A very interesting and attractive program has been arranged. Dr. Hugh H. Young of Baltimore will deliver the

"Address in Surgery." Railway surgeons, attorneys and officials and all members of the medical profession are cordially invited to attend. Dr. John W. LeSeur, President, Batavia, N. Y.; Dr. George Chaffee, Corresponding Secretary, 338 47th street, Brooklyn, N. Y.

AMERICAN PROCTOLOGIC SOCIETY. Fifteenth annual meeting, Minneapolis, June 16 and 17, 1913. President, Dr. Louis J. Hirschman, Detroit. Officers elected for the ensuing year: President, Joseph M. Mathews, M. D., Louisville, Ky.; vice-President, Jas. A. MacMillan, M. D., Detroit, Mich.; Secretary-Treasurer, Alfred J. Zobel, M. D., San Francisco, Cal.

The following is an abstract of the principal papers read:

"A Method of Operating on Fistula Without Cutting Muscular Tissue," by Rollin H. Barnes, M. D., St. Louis. This method is used in cases involving the sphincter muscles. An incision is made external to the sphincter, similar to that made when incising an ischio-rectal abscess. Through this opening the scar tissue is dissected out up to the internal opening. An incision is then made at the skin margin so that the middle of this incision passes through an imaginary longitudinal line drawn from the internal opening. A submucous dissection is then channeled out up to the internal opening. Gauze drainage is kept in this until the external wound is healed sufficiently. Then the submucous tract, which remains, is incised under local anesthesia. No muscular tissue having been cut, the function of the sphincters is preserved intact.

Report of a case of Fecal Tumor associated with Hirschsprung's Disease, by Alois B. Graham, A. M., M. D., Indianapolis. A French woman, aged 27, stated that she had undergone three abdominal operations for Megacolon. Present illness dates from birth. Not unusual to go a week or ten days without a stool, and then evacuation was produced only by means of enemata. At the age of 12 her condition was diagnosed as one of pregnancy on account of the vomiting and the appearance of the abdomen. At 19 she suffered complete intestinal obstruction. A large fecal tumor was removed from the sigmoid. Six months later she was operated for post-operative adhesions. No resection of the bowel or short-circuiting operation was performed. At 25 she suffered an attack of complete intestinal obstruction, and a large fecal tumor was removed. Patient stated that the bowel was plicated in closing. Wound healed promptly, but she remained in the hospital for three months purely for clinical purposes.

August, 1912, she, for the third time, presented symptoms of complete intestinal obstruction. She had been absolutely constipated for seven days. Abdomen enlarged and everywhere tympanitic except in the lower right quadrant, where there was a dull area corresponding to a large tumor which could be readily palpated. Tumor, a fecal mass, was exceedingly hard and did not pit on pressure. It could be easily moved in every direction throughout the abdomen. Attacks of violent, colicky pains were frequent. Vomiting was persistent, pulse 120, Temp. 101 F. Hydrogen Peroxide, introduced into the rectum, had no effect on the tumor, but produced excruciating pains over the entire abdomen. Patient consented to operation with the promise exacted that nothing radical be attempted. She requested that the fecal tumor be removed, but refused to give her consent to any short-circuiting or resection of the bowel. Median incision. No adhesions. Fecal tumor in sigmoid. Tumor of "stony" hardness. Its greatest circumference was $19\frac{3}{4}$ inches, its weight was 64 ounces. The dilatation which was confined to the sigmoid was very marked, the greatest circumference being 20 inches. Uneventful operative recovery, discharged on the tenth day. She gained in weight and appeared to be in the best of health. She experienced no difficulty in procuring daily evacuations with the aid of small doses of cascara.

December 15th, 1912, was the date of her last visit to the writer's office. At this time she was doing nicely. Information was received the latter part of April that patient had gone to Chicago from Indianapolis. She evidently suffered another attack of intestinal obstruction. She was operated there April 19th, 1913, and died three days later.

"A Further Consideration of Sir Charles Ball's Operation For Internal Hemorrhoids," by Alfred J. Zobel, M. D., San Francisco.

After a trial of this operation the author sums up as follows: As a modification of the old ligature operation, it is better than the latter, and at the same time is far superior to the clamp and cautery operation, in that it takes care of and avoids the recurrence of that revoluted anal skin ring which generally becomes markedly edematous immediately after these operations, leaving behind skin tags after the swelling subsides. In every instance in which the essentials of Ball's technique have been followed out carefully the author's results have been exceedingly satisfactory.

"Deductions Based on an Analysis of 3000 Rectal Cases," by T. Chittenden Hill, M. D., Boston. There was a total of 1120

operations. It was found that rectal ailments were more common among males, the ratio being three to two.

Hemorrhoids formed, 41 per cent. of the total; abscesses and fistulæ, 18 per cent.; pruritus ani, 8 per cent.; anal fissure, 10 per cent.; Colitis, 6 per cent.; prolapsus ani and procidentia recti, 3.7 per cent.; cancer of the rectum and sigmoid, 2 per cent.; benign growths, 1.5 per cent.; stricture, 1.5 per cent.; Syphilis, 2 per cent.; constipation, 2.8 per cent.

Other miscellaneous conditions were recorded which made up but a fraction of one per cent., such as anal verrucca, congenital stenosis, petulous anus, pilo-nidal sinus, furuncles, foreign body, incontinence, coccygodynia, trauma, sigmoid diverticulitis, etc.

"Z-Plastic Operation For Anal Stricture," by Wm. M. Beach, M. D., Pittsburgh. Extensive cicatrices, resulting from trauma, and involving the partial or entire anal circumference, not infrequently resist the usual methods employed to restore the physiologic function of the anus. He therefore employed what he terms a Z-plastic method when operating on an anal stricture. The principle underlying the procedure is the transposition of dermic tissue in such manner as to obliterate the crest of the fibrous band. The first incision is made along the crest of such a band; then incisions are made at right angles from both ends, but running in opposite directions, thus approximating the letter Z. The flaps thus outlined are dissected up, transposed and sutured. Various modifications are permissible, according to the extent of the stricture.

"Sphincteric Atrophy—Causes, Consequences and Treatment," by Ralph W. Jackson, M. D., of Fall River. Muscular atrophy about the anus produces more serious consequences than hypertrophy. The physiology of defecation is studied, and the action of the internal sphincter and of the external sphincter and levators sharply contrasted with their different innervation. This is preparatory to consideration and classification of the causes of sphincteric disuse and consequent degeneration. Congenital causes are found in imperforate anus and congenital ano-vaginal cloaca. Coincidental with general weakness cases occur in infants, the aged, and the extremely ill. Traumatic causes are faults of proctologic operations and after care, or obstetric lacerations, or due to prolonged divulsion by protruding piles or procidentia. Nerve causes are primarily sympathetic as in rectal stenosis, or central as in spinal cord lesions.

Degeneration or absence of one sphincter without impairment of the other is considered.

"Further Observations on the Surgical Anatomy of the Large Bowel," Granville S. Hanes, M. D., Louisville. Few realize that the capacious portion of the colon is at its cecal extremity. The diameter of the average cecum is estimated at three inches, which is about the same as the rectum, though the cecum and ascending colon have a much greater capacity than the rectum and lower extremity of the sigmoid. The large intestine gradually decreases in size from the cecum to the rectum; the descending colon measuring one and one-half inches, or even less, at its narrowest point. These physical conditions explain in a measure the locality to which large quantities of fluids are transported when injected into the rectum.

The question of antiperistalsis in the large intestine in man is yet to be settled. It has been suggested that anastalsis may be inferred to exist in the proximal human colon for the reason that rectal enemas have been observed to traverse the entire length of the colon and escape through an artificial opening in the cecum. Also, because surgeons have attempted to stop a fecal-fistula discharge by transplanting the ileum into the transverse colon and sigmoid, but without success. The fact that rectal enemas have been seen to pass through the cecal fistula is, he is confident, little evidence of the operation of an antiperistaltic force.

An ordinary colon tube was introduced two or three inches into the rectum of a dog, and through a funnel inserted into the proximal end of the tube was poured in bismuth-buttermilk, and by the X-ray the author observed it traverse the large intestine to the ileo-cecal junction with no sign of antiperistaltic movements. Similar experiments were made on children with corroborating observations. He has seen a pint of bismuth in suspension, when introduced into the rectum of an adult, pass around to the cecum in a few minutes with no evidence of aid by anastalsis.

Under normal conditions peristalsis in the large bowel is a slow process, and it is no more than natural to suppose that anastalsis is also slow in its operation. The brief time, then, required for fluids to pass from the rectum to the cecum compels us to consider the influence of other and more potent agents on the intestinal contents. Two factors are in operation when fluids are conveyed from the rectum to the cecum. The first is the distensible and elastic nature of the intestinal tube; and the second is the hydraulic principle which controls fluids wherever they may be. If fluid is forced rapidly into the rectum that organ will be seen to be widely distended; but this same fluid can be seen

to make its way up the intestinal tube along the path of least resistance. The distended rectum, because of its elastic nature, presses upon the contents till every drop of fluid within its lumen is subjected to an equal pressure. So if additional fluid is forced into the rectum the same factors will continue to operate.

If the ileum is transplanted into the transverse colon or sigmoid the watery intestinal contents will be forced by the elastic intestinal tube in the direction of least resistance. The right segment of the colon is the capacious portion of the large bowel, so if fluids are under greater intestinal pressure in the lower bowel the fluid contents will travel up to the cecum.

The author says, that even if we do admit the existence of anastalsis in normal conditions of the colon, he does not believe it to be an important factor in conveying fluids from the rectum up into the colon.

Hanes had a series of three X-ray pictures made on the same individual to show what actually happens when tubes are introduced into the bowel. The first shows a thirteen inch proctoscope introduced its entire length. The distal end is one inch above the umbilicus. The second shows an ordinary colon tube introduced its full length after the removal of the proctoscope. The tube passed along the sigmoid up to the highest point (one inch above the umbilicus), and then turned upon itself, the distal end passing back to the rectum. The third radiograph shows the bowel injected with bismuth-buttermilk, and the thirteen inch sigmoidoscope introduced again. This picture shows that it is impossible to pass any instrument high up in a normal colon, except by the greatest accident. The sigmoid is lifted up into the abdominal cavity; its lower arm is occupied by bismuth and the metal tube; while the upper segment of the sigmoid is seen very distinctly where it has dropped back from a point opposite the umbilicus into the pelvis to its junction with the lower extremity of the colon. He claims the latter radiograph proves that it is impossible to pass a non-flexible instrument beyond the first half of the sigmoid.

To control the outflow of fecal material in colostomies the author has found, in five cases operated since January of this year, that the hard rubber rod can be allowed to remain permanently, when used as in the Maydl operation. The opening in the intestine is above the rod. A thin gauze dressing is applied over the bowel, and a strip of gauze is thrown around the knuckle of the intestine and overlying gauze is then tied under the supporting rod. The strip of gauze constricts both the upper and

lower segments of the bowel, and exerts a most satisfactory control over these artificial openings.

"The Ano-Rectal Line: Its Clinical Significance," by Collier F. Martin, M. D., Philadelphia. After discussing the development of the anus and rectum, Martin states that the ano rectal line, or dentate border, has a very important clinical significance, in that it is the point at which both the blood supply and the nerve supply become differentiated. Above it the blood is carried by the portal circulation to the liver; while below it the blood stream mingles with the general circulation by way of the inferior vena cava. Above it the rectum is supplied only with visceral or sympathetic nerve fibers, which below it, the anus and its surrounding structures are supplied with spinal nerves, and by sympathetic filaments. These spinal nerves carry sensory impulses common to nerves having specialized cutaneous nerve-endings.

Below the ano rectal line, as evidence of irritation of the spinal innervation, sensory disturbances are expressed in terms of pain, itching, formication, and in alterations in spinal sense of touch and temperature, with their modifications such as dryness and moisture. Stimuli producing these sensory disturbances show their presence by exciting motor contraction, or by inducing alterations in secretion.

Above the ano rectal line all of the specialized spinal sensations are absent, only the visceral sensations being present. In the rectum it is only pressure and muscle-sense that appeal to our consciousness. This sensation is translated in the brain into a desire for stool, which desire is inhibited or assisted voluntarily, as occasion may require.

Excessive spasm of the involuntary muscles supplied by visceral nerves produces an unpleasant sensation, which differs from pain of spinal origin in that it is difficult to localize, and may be described more as an ache, which is difficult to bear and exhausting to the patient.

Lesions of the crypts of Morgagni, since they involve both the visceral nerve supply of the rectum and the spinal innervation of the anus, are associated with many disturbances of the reflexes.

Infection and malignant processes, occurring above the dentate border, tend to spread upwards, by way of the deep lymphatics, to the pelvic or uro-genital organs, or to the liver, via the portal system. Below the ano rectal line superficial abscesses result from infections of the proctodeum and the rectal crypts. Malignancy here is associated frequently with extension to the inguinal glands.

In general there is a marked tendency for pathologic processes to limit their invasion to the embryonic structure in which they began; the ano rectal line being the "great divide" between the ectodermic and the entodermic structures. Rectal infection and malignancy rarely extend below the dentate border, while anal pathology usually remains below this line and the levator ani muscles.

Ano rectal symptomatology is equally differentiated. The subjective symptoms of a pathologic process bear little relationship to the lesion, per se, but depend upon the interference with the functions of the spinal or sympathetic nerve supply of the tissues involved, whether this interference be mechanical, inflammatory or functional.

"Further Observations on Pruritus Ani: Its Probable Etiologic Factor; Results of Treatment," by Dwight H. Murray, M. D., Syracuse. He found no reason for materially modifying his former reports, but has gathered data which helped to prove their correctness. He found streptococcic infection in three cases of pruritus ani and vulvae, and in four cases of pruritus that had involved the scrotum as well as the anus. These complicated cases improved, with the exception of two vulva cases, by the use of the vaccine treatment.

During the past year Dr. Murray has increased his former series of thirty-two cases by twenty-five additional cases, in five of which streptococcic infection was not found. These cases showed other infections, which still further proves the cocigenous nature of pruritus ani; and also demonstrates that other bacteria than streptococci may bear a casual relationship, as was hinted in his first paper on this subject.

His cases, so far as he has been able to determine, have not been affected by diet. Since Dr. Murray discovered the infection in pruritus ani he has never interfered with the food of any patient; neither has he restricted them in the smoking or drinking habits. The improvement under the vaccine treatment, without regard to eating, drinking or smoking, gives him additional proof for the bacterial theory.

During the past year he has carefully investigated as to whether or not the itching extends into the anal canal beyond Hilton's white line, with the result that only in one instance did it extend beyond that point, and then only for a short distance.

His investigations of the past year have given him additional proof that pruritus ani is not caused by any local lesion within the

anal canal, and that when such lesions exist with pruritus ani they are coincidental.

In the cases that have been operated for local lesions the pruritus ani has not been permanently improved as a result of the operative procedure.

He said that rectal and general surgeons have observed many cases of fistulæ with discharges upon the anal skin, without pruritus ani being present. The same is true of hemorrhoids, constipation and other rectal lesions, pruritus ani occurring in only a small proportion of such cases. He, therefore, still holds that when pruritus ani exists in connection with other lesions that it is a coincidence. In his 1912 report he gave a summary of nine hundred consecutive rectal cases wherein this fact was established fairly well.

He referred to the opsonic index, or more properly the coefficient of extinction of opsonins, and claimed that much valuable information was to be gained by this test.

His work shows that if a complicating infection exists, and other bacteria than streptococci are found to be the sole invading organisms, we must use the corresponding autogenous vaccine. The opsonic index, following a bacterial diagnosis, is the proper method for determining this.

The results of treatment and the history of patients prove to him that if pruritus ani exists with local lesions which demand operation, that the prognosis depends upon whether a skin infection is present or not. If the skin infection is present the local lesions may be cured by the operation, but the patient should not be led to believe that the pruritus ani will also be cured by it. Per contra, if a skin infection does not exist with a local lesion and itching, the prognosis may be that the itching will very likely cease with the cure of the local lesion.

After personal investigation in treating, watching results, noting how cause, effect and results dovetail together; comparing these investigations with statements and theories made in text books, and in articles appearing from time to time in medical journals, and containing no definite pathology or scientific reasons for cause and effect; Murray cannot understand how the profession will uphold such theories, rather than the bacterial theory which has been so well proven in his own cases and confirmed by other observers.

The uniformity of the bacteriologic findings is a strong support for the bacterial theory of the etiology of pruritus ani. The

chronicity of all the cases, the uniform symptoms, the similar conditions of the skin, the locality, the regularity as to the time of attacks, the uniformity of itching outside of Hilton's white line, the uniform blood findings as to the coefficient of extinction of opsonins, and the fact that all local applications which have given beneficial results in the past have contained a strong germicide, all point directly to a common cause. Further confirmation is found in the uniformly good results of treatment with autogenous vaccine of the variety of bacteria against which the patient has a low phagocytic power, and in the lack of good results by the various haphazard methods of treatment in general vogue.

His reference to fissures in previous papers having been misunderstood by some, he desired to state that he had referred only to fissure-like cracks of the skin, and not to anal fissures or ulcers.

Endo's medium is used to plate the cultures. The vaccine employed is of the strength of one billion to the CC., beginning with two minims, or one hundred and thirty millions.

Dr. Murray refers to a paper written by Dr. Jerome Wagner of New York City, published in the May number of the Medical Review of Reviews, in which Dr. Wagner reports some erroneous ideas claimed to have been gleaned from reading Murray's first two reports. Dr. Wagner not having been able to confirm these reports, Dr. Murray pointed out the errors of technique in Dr. Wagner's work, as well as his errors in the interpretation of the reports.

Dr. Murray gave statistics in favor of his theory, drawn from three years' original work on the subject; he also gave a summary of the results of treatment, showing the favorable clinical results with autogenous vaccines in a large majority of the cases treated.

He summed up his conclusions as follows:

1st. Results of the past year's work continue to uphold the correctness of the bacterial theory of pruritus ani.

2d. It is advisable to make a bacteriologic examination of all cases of pruritus vulvae; also of cases of scrotal pruritus.

3d. The coefficient of extinction of opsonins is a valuable aid in diagnosis in complicated and obstinate cases.

4th. Pruritus ani in this series of cases rarely extends above the white line of Hilton, and it is still subjudice.

5th. The presence of a skin infection with a local lesion begets an unfavorable prognosis for the cure of pruritus ani by an operative procedure.

6th. The absence of a demonstrable skin infection and the presence of local lesion, with pruritus ani, will justify us in making a favorable prognosis for the cure of the pruritus ani by an operative procedure.

7th. Pruritus ani, with such infection as we have demonstrated, and a lesion existing in the anus or rectum, according to his statistics, is a coincidence, and the latter lesion is not the cause of the pruritus ani.

8th. The sphincter muscle does not allow a leakage of rectal mucous upon the anal skin of one who has pruritus ani, except there is a patulous anus, any more than it does in a normal individual who has no pruritus ani. The moisture of the parts is due to a low grade inflammation of the infected anal skin.

"Treatment of Fistula-in-Ano," by J. A. MacMillan, M. D., Detroit. There are three essentials for the operation for this condition:

1st. An incision that will open up every ramification of the fistulous tract.

2d. The excision of the fibrous tissue which forms its walls.

3d. Free drainage and a regulation of the granulation by means of pressure by gauze packing.

BOOK REVIEWS.

SEXUAL IMPOTENCE. Wm. J. Robinson of New York, published by Critic & Guide Co., 12 Mt. Morris Pk., W., N. Y.; 422 pages; \$3.00.

Dr. Robinson discusses the numerous phases of this subject, in both sexes, clearly and in detail. He tells no lies to conform to moral, social and religious ideals and, consequently, those who differ with him in beliefs or in pretensions may censure him as immoral. In some of these points there is opportunity for difference of opinion but, on the whole, we think that Dr. Robinson has expressed what the majority of physicians believe, though not necessarily the opinion most frequently published.

The scope of the work is rather inadequately expressed by the title, as pretty nearly every conceivable sexual abnormality, phy-

sical or psychic, is at least alluded to. While the author necessarily deals with subjective symptoms and impressions, there is not the tedious and disgusting display of the patient's mental evacuations which are so conspicuous in some works along comparable lines and for which we have never been able to see any more excuse than for giving the patient's introspection full play in typhoid, hepatic sclerosis and other diseases. If we were to select any one feature of this work for special mention, it would be the uniform common sense of the author—not implying on one hand that there is any lack of scientific thoroughness nor, on the other, that the author's judgment is always the last word in debated topics.

IONIC MEDICATION. Lewis Jones, M. D., London; P. Blakiston's Son & Co., Philadelphia; 151 pages; \$1.50.

After discussing very lucidly the theory of ionization and giving tables of electro-chemic equivalents, etc., the author passes to the consideration of apparatus and methods. As the subject is practically limited to galvanism, this part is quite brief. Diseases and drugs are then considered seriatim, the author limiting himself to the conditions to which the method is practically applicable and to the means which have been found of actual service. Cautions and contra indications are plainly stated. Perhaps the best recommendation of the work is its brevity, for the reason that the very clear presentation of principles and facts has not been obscured by a mass of unnecessary details and that the therapeutic portion of the book is limited to items apparently well established.

GENITO-URINARY DIAGNOSIS AND THERAPY. By Dr. Ernst Portner of Berlin, translated and edited by Bransford Lewis, M. D., B. S., St. Louis. Published by the C. V. Mosby Co., St. Louis; 221 pages; 43 illustrations; \$2.50.

This is a brief but full consideration of the venereal diseases and other diseases and lesions of the genito-urinary organs of the male and female. The apothecary's system is used exclusively in the formulæ. The author, or editor, is to be complimented on having, for the most part, avoided such objectionable words as Bartholinitis, Vaginitis, etc. An appendix by Dr. A. Sophian of Kansas City, deals with the serologic test for and the vaccine treatment of gonococcic disease. The work is of the highest practical value.

REPORT OF THE COMMISSIONER OF EDUCATION (P. P. Claxton)
DEPARTMENT OF THE INTERIOR, 1912. Government Printing
Office, Washington; two volumes.

The first volume deals with general discussions of educational systems in this and foreign countries; the second is almost entirely statistic. Approximately 20 per cent. of the whole population is enrolled in grammar schools or high schools, and from 68 to 78 per cent. of the population between 5 and 18 years of age is thus enrolled in different sections. Illiteracy shows some curious and significant variations. For the whole country, 7.7 per cent. of the population over 10 years of age is illiterate. 30.4 per cent. of negroes, 12.7 per cent. of foreign-born and only 3.7 per cent. of natives born of native parents are illiterate. But the native born of foreign or mixed parentage have the lowest illiteracy of all—1.1 per cent. Such figures seem susceptible of only two interpretations: either the 12.7 per cent. illiteracy of the foreign born is illiteracy in regard to a language still unfamiliar or, if accurate for any language, it is the illiteracy of lack of opportunity and not of appreciation of the value of education.

Approximately half of the population from 15 to 17 inclusive, is at school, so that it may be concluded that nearly half of the rising generation have a high school education. For the years 18-20, the proportion drops sharply to 15 per cent., but there are over a third of a million students who have reached their majority. The time, direct expense and abstraction of so much of the population from productive labor as well as the maintenance of a correspondingly large proportion of the adult population as teachers, while of true economy, represents a burden many times greater than that of the army and navy and, doubtless, has some influence on the increasing stress of living. Perhaps, looking toward the future, it would be well to apply seriously, to education, the joke about the man who offered his sword to his country and who was refused because what the country most needed was muskets.

The *New Zealand Medical Journal* of June, 1913, reviews six American books, two English books and three small works by British colonists.

Acknowledgment is made of the receipt of the Annual Calendar of the Faculty of Medicine and of the Department of Dentistry and a separate fasciculus of the latter. These are for the session of 1913-14, being the 82d of the Department of Medicine and the 10th of the Department of Dentistry.

A REFERENCE HANDBOOK OF THE MEDICAL SCIENCES. Embracing the entire range of Scientific and Practical Medicine and Allied Science. By various writers. Third edition, completely revised and rewritten. Edited by Thomas Lathrop Stedman, A. M., M. D. Complete in eight imperial quarto volumes. Volume II. Wm. Wood & Co., New York.

The second volume maintains the high standard of the first and the policy of the present edition in presenting a relatively greater number of short articles than in either of the previous editions, is more apparent in the second volume. We find that the first edition, published about 1888-90, is still not only interesting but valuable for many purposes aside from historic reference. The present edition is not only up-to-date but perfected by experience. Among the contributors we note the following names of men in our special field: McGuire, Mann, Park and Benedict of Buffalo, Kerr of Ithaca.

PRACTICAL MEDICINE SERIES. Vol. 3, Eye, Ear, Nose and Throat; Vol. 4, Gynaecology. The Year Book Publishers, Chicago. Vol. 3, 370 pages, illustrated, \$3.50; Vol. 4, 230 pages, \$1.35. Price for the annual series of ten volumes, \$10.

This, series, which we have reviewed favorably for several years, is under the general editorial charge of Charles L. Mix, A. M., M. D., of Chicago, who was formerly associated with the late Dr. Gustavus P. Head in the same capacity. Vol 3 is under the special editorial control of Dr. Head, Casey A. Wood and Albert H. Andrews. Vol. 4 is edited by Drs. Emilius C. Dudley and Herbert M. Stowe, all of Chicago. Being a review of current literature, the series does lend itself well to detailed review. All things considered, it combines brevity, wise selection and thoroughness of detail, in an ideal way.

GOUT, ITS AETIOLOGY, PATHOLOGY AND TREATMENT, by James Lindsay, M. D., M. R. C. P., London, formerly Honorable Pathologist and Resident Medical Officer of the Royal Mineral Water Hospital of Bath. Published by the Joint Committee of Henry Frowde and Hodder & Stoughton, Oxford Press, London, represented for America by the Oxford University Press, 35 W. 32 St., N. Y. City; 212 pages, \$1.50.

The thoroughness and impartiality with which the author has collated his data, his large personal experience of a practical

nature but freedom from hobbies, render it extremely difficult to review this book. There is scarcely any theory of its nature seriously proposed and accepted by many physicians at any time, which does not contain a germ of truth, and none which by itself, explains the pathogeny of all cases. Necessarily, in some instances, one has to deal with conflicting evidence. Consequently, the book should be read in full and the tendency to follow any tangent of aetiology or treatment should be resisted. The fact that the author has based his book on both literary study and personal experience and that he is qualified to control chemic and pathologic data by clinical results will prove disappointing to such readers as ask a simple, general, easily remembered theory and schedule of therapeutics. But the same qualifications will increase the value and interest of the book to the thorough student who wishes to have precise information and guidance toward a successful therapy for the individual case. Finally, just to be inconsistent, we wish to throw out a suggestion that the conspicuous types and frequency of gout in England and in some parts of France, may have a very simple geologic explanation—the richness of the soil in chalk, at least in certain portions of southern England. This may also explain certain apparent inconsistencies with regard to race, habits of eating and drinking, exercise, heredity, etc. And it may also explain the efficacy, in certain cases, of apparently opposite methods of chemic treatment, the non-association of typic gout and urinary calculus and various other points. If this hypothesis is anything more than the first impression of a conspicuous geologic difference, it may perhaps be tenable that the extreme types of gout are due to the coincidence of fundamental metabolic disturbances with opportunities for impregnation with lime.

SKIN DISEASES IN GENERAL PRACTICE, by Haldin Davis, M. B., B. Ch., B. A., F. R. C. S., M. R. C. P., London. Published as above; 340 pages, illustrated, \$3.75.

After a brief introductory chapter, the author discusses skin diseases due to pyogenic bacteria, erysipelas, impetigo, boils, furuncles, carbuncles, sycosis, then eczema, whose definition and classification is still unsatisfactory and syphilis. He then adopts a simple classification, especially serviceable to the general practitioner, according as the eruption is wide spread, or confined to various parts as the face, limbs, pudenda, etc.

ABSTRACTS.

CLINICAL OBSERVATIONS CONCERNING THE HEART IN SYPHILIS. Harlow Brooks, *Interstate Med. Jour.*, 1913, xx, 507. According to Brooks' statistics, involvement of the heart is responsible for death, or is a very important contributing factor to it, in 70 per cent. of the mortalities in syphilis. In a systematic study of fifty consecutive autopsies in individuals who had succumbed during the tertiary or quaternary stages of syphilis, grave heart lesions were found in from 50 to 80 per cent. In syphilis the heart may become involved very early in the secondary stage of the disease, although the majority of cases probably develop rather late; perhaps twenty or thirty years after the initial lesion. A clear history of luetic infection is obtained in a relatively few cases of syphilis of the heart; so that in a series of cases in which the diagnosis was made or verified at autopsy there was no obtainable history in 70 per cent. The majority of the cases present themselves complaining of dyspnea on exertion, cardiac pain, palpitation, throbbing arteries and weakness. Myocarditis, endocarditis, or aortitis are made out on physical examination. In order of frequency the lesions found by Brooks have been (1) associated mitral and aortic disease, (2) aortic endocarditis, (3) irregular involvement of the other valves. Although mitral disease is fairly frequent in syphilis, that infection shows a definite affinity to attack the aortic valves and the conus arteriosus. When a suitable history cannot be obtained from the patient it is reasonable to assume that an aortitis is caused by lues until other explanatory data can be obtained. The Wasserman reaction should be done in all cases. The disease is progressive and although definite valvular signs and symptoms may be present the factor of myocardial involvement becomes daily and progressively more dominant. A positive Wasserman reaction obtained by a competent observer after the employment of the older Wasserman technique is incorrect in very few instances. There are some cases in which the Wasserman reaction has become positive after antisyphilitic treatment has been instituted. The prognosis should depend upon the results of the antisyphilitic treatment. Sometimes endocardial murmurs disappear completely. The primary treatment should be along cardiac lines. Later, salvarsan intravenously (0.3 gm.) followed by mercury intramuscularly or by inunction or by the mouth. The salvarsan should be repeated in a week or a month. After all symptoms have disappeared one month should be

allowed to pass without treatment and then the Wasserman reaction should be tried again. If it is negative, treatment may be discontinued for another three months and the Wasserman reaction again tried. The author is of the opinion that the iodides have little specific action against the syphilitic virus; yet he uses them for their effect in promoting the absorption of deposits and exudates.

HEART BLOCK (Adams-Stokes Syndrome). By I. W. Held, *New York Med. Jour.*, 1913, xcvi, 763. Held reviews the experimental work done in heart block, beginning with the experiments of Romanes on the umbrella of the jelly fish and of Tigerstedt, Wooldridge and McWilliams on the mammalian heart in 1884, 1883 and 1888, respectively. He points out that heart block is not synonymous with Adams-Stokes syndrome; that the latter is the clinical manifestation of the former; but that the former may exist without the latter. The following pathological conditions have been described at autopsy: gumma of the bundle of His, stretching and obliteration of the auriculo-ventricular bundle, lymphatic deposits in the bundle, round celled sarcoma of the interventricular septum, infarction of the bundle of His, etc. It is safe to conclude that a slow pulse (the author probably means a constant pulse rate in the neighborhood of 30 or 40 per minute) is due to dissociation between the auricle and ventricle and that the syncopal attacks in Adams-Stokes syndrome are due to the cessation of the ventricular beat; not to the auricular pulsation. In addition to cases of Adams-Stokes syndrome dependent upon disease of the bundle of His we have a type in which the bundle of His is intact but in which the myocardium is extensively diseased; the mural type; and the neurogenic type. The latter type of case is influenced by atropine. Digitalis causes heart-block and whenever the polygraph shows an increased a-c interval that drug should not be used. The prognosis is bad. If the condition is due to a gumma, antiluetic treatment may give brilliant results. Sodium or potassium iodide should be tried in any case. Hydrotherapy is of value; the neutral bath being most efficacious. Carbonated brine baths should be used with great caution and never when there is hypertension. Atropine is useful in the neurogenic type. Caffein and sodium benzoate may be tried. Nitroglycerin should never be used.

CASTOR OIL TASTELESS. Aromatic or tasteless Castor Oil is made as follows:

Saccharin	gr. vii
Vanillin	gr. ii
Oil of Cinnamon, Ceylon.....	gtt. viii
Oil of Anise.....	gtt. vii
Alcohol	3v
Castor Oil, to make.....	3xxxii

SERO-DIAGNOSIS OF PATERNITY. Mayoral and Jimines, *La. Med. Scientif.*, Feb., 1912, following the analogy of Eksberg's specific cancer reaction, claim that emulsions of erythrocytes in isotonic NaCl solution, injected under the skin of pregnant women produce an erythematous spot within six hours, if the erythrocytes are derived from the man by whom they are pregnant, otherwise not. They have controled the test in various ways and claim that it is reliable. Various allusions to this report have appeared in American journals, but we have seen no recent articles confirming or discrediting the claim.

PYOCYANEUS SEPTICAEMIA. J. Michell (sic) Clarke, *Bristol Medico-Chir. Jour.*, March, 1913, reviews the literature which is quite extensive and includes both pure and mixed infections, and reports a pure case, in a laborer, aged 15, who died before autogenic vaccines could be used.

Philip F. Williams and Richard M. Pearce, *Surg. Gyn. and Obs.*, April, 1913, have employed the Aberhalden method in 28 cases of pregnancy and 8 post partum cases, including 1 after abortion. The test has never been negative in a known pregnancy, but the serum of pregnancy reacts with kidney, heart and uterus and even with non-human tissues (*e. g.*, dog's kidney). Like Schwartz, they believe the nonhydrin test superior to the biuret reaction. They consider that results as satisfactory as with dialysis, may be obtained by mixing tissue and serum in tubes, incubating for 24 hours, coagulating with heat and acetic acid and applying the ninhydrin test to the filtrate. But they hold that the test should not be accepted clinically until it has been further investigated. Carey Pratt McCord of Detroit, *ibid.*, basing his conclusions on 240 tests under various conditions and at different periods of pregnancy, considers the test as reliable and practical but subject to limitations and with the proviso that the technic is accurately followed.

BRENDEL MODIFICATION OF WASSERMANN TEST Ward Burdick of Denver, *Col. Med.*, April, 1913, (cf. Brendel & Miller, *Münch. Med. Woch.*, August, 1912), reports a series of 100 Brendel tests, 13 negatives, 87 positive, all controlled as perfectly as possible by other signs and apparently all reliable, that is, the positive reactions occurring in syphilis, the negative in non-syphilitics. The test, however, cannot be used independently of the original Wassermann.

CRY OF FOETUS IN UTERO. W. P. Moncure of Fairfax, Va., *Homeopathic Recorder*, April, 1913, reports a case.

TIMELY HINTS FOR DISPENSING DOCTORS. *Monthly Therapeutic Topics*, March, 1913. An Indiana physicians' supply house shipped some "Citrate of Caffeine" tablets labeled as containing 2 grains each. Analysis by the Bureau of Chemistry, U. S. Department of Agriculture, showed that these tablets contained less than $\frac{3}{4}$ of one grain of caffeine citrate.

The following are other statements from the same source regarding this firm's products: Compressed Calomel tablets labeled to contain 2 grains each, contained only 0.93 of a grain. Calomel and Soda tablets labeled to contain 1 grain each contained only 0.62 of a grain of calomel.

Compressed tablets Damiana Compound labeled to contain Phosphorus $\frac{1}{30}$ gr., Extract Nux Vomica, $\frac{1}{4}$ gr., and Extract Damiana, 2 grains, contained only a trace of Phosphorus and less than $\frac{1}{12}$ gr. Extract of Nux Vomica. Nitroglycerin tablets labeled to contain $\frac{1}{50}$ grain contained less than $\frac{1}{600}$ grain.

In the table below are the results of other findings by the Bureau of Chemistry on this and four other Indiana firms' products.

For detailed account of these frauds see notices of Judgment numbers 1796, 1799, 1810, 1843 and 1848, as issued by the Office of Secretary, U. S. Department of Agriculture.

Label Statement.

Actual Contents.

Fluid extract Golden Seal, U. S. P.	Less than one-half
Wine Coca	Misbranded
Sodium Salicylate tablets, 3 gr.	1.82 gr.
Strychnine Nitrate tablets, $\frac{1}{40}$ gr.	0.014 gr.
Nitroglycerin triturations, $\frac{1}{100}$ gr.	0.004 gr.
Acetanilid tablets, 5 gr.	4.36 gr.
Nitroglycerin tablets, $\frac{1}{50}$ gr.	0.005 gr.
Acetphenetidin tablets, 3 gr.	2.31 gr.

Tablet triturates Aloin, 1/10 gr., Iron, 1 gr., Strychnine Sulph., 1/60 gr.....	0.01 gr. Strychnine
Tablets Ferruginous Blaud's, 3 gr., and Extract Nux Vomica, 1/6 gr.....	1/16 gr. Ext. Nux Vomica
Tablets Flatulence, Ext. Nux Vomica, 1/4 gr. Ext. Cascara Sagrada, 1 gr., Ginger, 3/4 gr., Asafoetida, 1 gr., Diastase, 1 gr.....	1/8 gr. Ext. Nux Vomica
Nitroglycerin tablets, 1/50 gr.....	0.008 gr.
T. T. Ext. Nux Vomica, 1/4 gr.....	1/75 gr.
Salol tablets, 2 1/2 gr.....	1.8 gr.
T. T. Strychnine Nitrate, 1/40 gr.....	1/50 gr.
Tablets Aloin, 1/5 gr., Ext. Belladonna, 1/8 gr., Ext. Nux Vomica, 1/8 gr.....	1/4 gr. Ext. Belladonna, 1/40 gr. Ext. Nux Vomica

DANGER OF ABDOMINAL CAESARIAN SECTION IN ECLAMPSIA,
Dr. John T. Villiams, *Boston M. and S. Jour.*, March 27, 1913.

Abdominal Caesarean section was first performed in eclampsia by van den Akker in 1875 and by Halbertsma in 1889. Excluding operations performed post mortem and on the dying, I have been able to collect in all 85 cases from the literature. It is fair to state that in 21 of these there existed a mechanical indication as well as for Caesarean section, but as this in no way influenced the actual result of the operation, such cases are equally as available for our consideration as those in which eclampsia alone furnished the indication for this method of delivery.

It will be observed that these were all cases of well developed eclampsia, therefore deductions drawn from them do not of necessity apply equally to threatened eclampsia.

The following table presents a brief resume of the reported cases. The omission of blood pressure observation is not an oversight, but it is because no mention was made of it in any reported case.

Among the 85 cases there were 41 maternal deaths, a mortality of 48.2%. This mortality is distributed as follows: From sepsis, 7 deaths; from hemorrhage from broad ligament after Porro operation, 1; from rectal hemorrhage, 1; from tuberculosis, 1; from exhaustion, 1; from pneumonia, 1; from eclampsia, 20. In 9 cases the immediate cause of death was not stated, but presumably was eclampsia.

Now let us compare these figures with the results by a few leading operators with the two other methods of rapid delivery in eclampsia.

MANUAL OR INSTRUMENTAL DILATION.

Zweifel	80 cases	15% mortality
Glockner	143 cases	15.49% mortality
Ferri	82 cases	7% mortality
Newell	79 cases	26.5% mortality

VAGINAL CAESAREAN SECTION.

Dührssen	112 cases	15% mortality
Beckmann	43 cases	18% mortality
Veit	13 cases	3% mortality
Fry	13 cases	6.66% mortality

The high mortality from abdominal Caesarean section results partly from peritonitis and other forms of sepsis, but mainly from the added strain thrown upon the liver and kidneys.

The fetal results demand some mention. In examining the literature it has been extremely difficult to find out the cause of fetal deaths or even to separate still-births from deaths occurring soon after birth. Friedemann gives as the general fetal mortality in 1,601 cases of eclampsia 75.4%, and Goedecks 48% in 330 cases.

As would be expected, the fetal results are better after Caesarean action (42.2% mortality); but so many factors—prematurity, the effect of convulsions and the toxins of eclampsia on the child—influence unfavorably the outcome that the fetal results must be poor under any treatment.

CONCLUSIONS.

Abdominal Caesarean section in eclampsia has a maternal mortality of 48.2%.

Vaginal Caesarean has a mortality ranging from 3% to 18%; and dilatation of the cervix from 7% to 26%.

Therefore, abdominal Caesarean section in eclampsia should be restricted to those cases in which there is a pelvic contraction sufficient in itself to demand it, and possibly also early cases of threatened eclampsia at or near term, where the shock of a vaginal delivery seems to offer much greater danger than the added strain imposed upon the excretory organs by Caesarean section.

NEW REMEDIES. Acitrin is the trade name for ethyl phenylcinchoninate.

Acinophor is a mixture of cerium dioxide (3 parts) and thorium dioxide (1 part). It is used as an X-ray diagnostic.

Benzol has recently been advocated by Continental physicians in the treatment of leukæmia. The article referred to is *benzene*, C_6H_6 , obtained by the fractional distillation of the light oil of tar, and not commercial benzol obtained from petroleum. Pure benzene is given in capsules containing $\frac{1}{2}$ grain each benzene and olive oil, and has been found to reduce in a marked manner the number of leucocytes in the blood.

Brophenin is paraphenetidin bromisovaleryl amino acetate, and occurs as a white tasteless powder. It is given as a febrifuge and as an analgesic in neuralgia, etc.

Ceolat is the cerium salt of a fatty acid, used as a solution, dusting powder, or ointment, in the treatment of wounds.

Cretaform is oxymethylcresol-tannin. It is an odorless powder used in the treatment of wounds.

Cuprase is a suspension of colloidal copper hydroxide, used for subcutaneous injection in cancer.

Lantol is a name given to colloidal rhodium (see *Prescriber*, Jan., p. 21). It is used for injection in cancer.

Mesbe is a preparation of *Sida rhombifolia*, recommended as a remedy for tuberculosis (*Münch. Med. Woch.*, Aug. 20, 1912; Jan. 21, 1913..

Ninhydrin is tri-keto-hydrin hydrate, and is used as a reagent for the detection of albumin, peptones, etc. (Meister, Lucius and Brüning).

Ortizon is a "solid hydrogen peroxide" prepared with urea, similar to *Hyperol* (see *Prescriber*, 1912, p. 59.)

Phylacogens are a series of products representing the secretions of specific micro-organisms. These secretions have been shown by Schafer to have an inhibitory influence on the growth of their own particular germ, just as acetic acid overcomes ordinary fermentation. Phylacogens are prepared for rheumatism, erysipelas, gonorrhoea, and mixed infection, by Parke, Davis & Co.

Scabosan is a nicotine salicylate soap, used for the treatment of scabies.

Thymacetol is the acetone ester of thymotic acid, recommended by Bachem (*Berlin. Klin. Woch.*, Oct. 28, 1912) as a local anæsthetic.

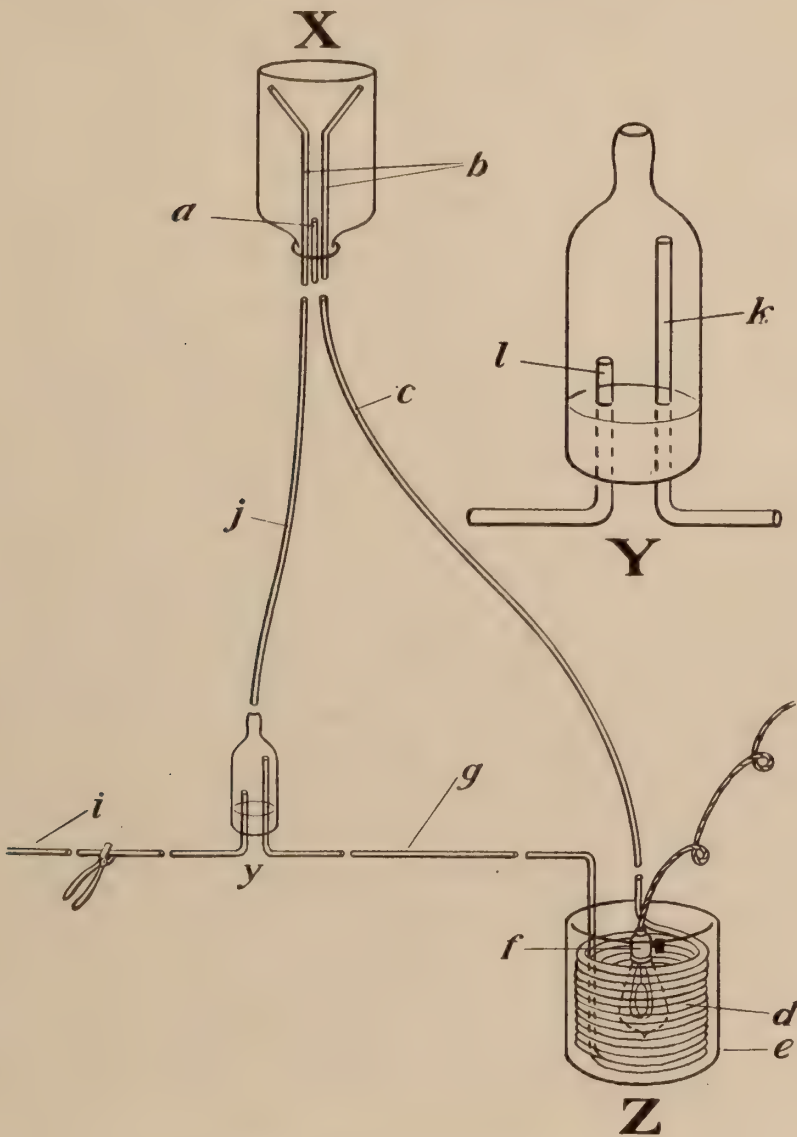
Vanadium Selenide, Va_2Se_3 , is recommended by F. von Oefele as a remedy for cancer (*New York Med. Jour.*, Jan. 11, 1913).

—*Prescriber*, March, 1913.

The April issue of the *Prescriber* contains an elaborate discussion of Hormones: price, 27c. Address Edinburgh, Scotland.

GENERAL ANAESTHESIA BY INTRAVENOUS INJECTION OF ETHER-SALT SOLUTION, Dr. L. W. Jenkins, Asst. Surg. U. S. P. H. Service, San Francisco, *Northwest Medicine*, December, 1912. (Cut loaned by courtesy of Editor.)

To avoid danger of contamination through repeated handling of the solution, we have come to use a large bottle marked at 2325 cc. and at 2500 cc. Into this bottle is inserted a three-hole



Design Furnished by Author.

rubber stopper with a short glass tube (a) passing barely through the stopper, and two long glass tubes (b) reaching to the bottom of the bottle. Attached to the short glass tube is 125 cm. of rubber tubing (c) 5 mm. in diameter, passing to a copper tube coil (d) of the same caliber, 300 cm. in length. This copper coil fits into a basin (e) 15 cm. in diameter of about a litre capacity. This basin is filled above the coil with water kept at a temperature of

45° C. by a 32 cp. electric bulb (f). Another rubber tube (g) leads from the copper coil to what we may call a "gas separator" (y) which should be in immediate proximity to the canula (i) inserted into the vein. From the separator another piece of rubber tubing (j) 3mm. caliber returns to the bottle and is attached to one of the glass tubes extending to the bottom of the bottle.

The "gas separator" is a simple but important piece of apparatus consisting of a 2cm. glass cylinder pointed at one end to receive a rubber tube and open at the other to receive a two-hole rubber stopper. A long glass tube (k) carries the heated solution and ether vapor up to the pointed end of the cylinder, from which the gas ascends through a rubber tube (j) to the original container and the fluid settles to the bottom of the cylinder, being drawn off by a short tube (l) from the bottom of the separator to the vein. The physics of the apparatus require that this return tube rise to the level of the liquid in the bottle, and it is more cleanly and more economical to allow the fluid which is raised with the gas bubbles to return to the original container.

The second long tube in the bottle is a safety device which permits the ingress of air to replace the escaping liquid, and allows the egress of the returned ether vapor from the separator.

The bottle and tubing and coil all can be sterilized with very little trouble. A word of caution is that the tubes should be washed out with a brisk stream of water when used for the first time and before each injection the solution should be allowed to flow long enough to flush out the tubes.

This apparatus works perfectly, the temperature of the solution being easily regulated by means of the electric bulb, and all gas bubbles are isolated from the solution before entering the vein.

IMPORTANT DATES IN THE CHRONOLOGY OF PHARMACY. John F. Llewellyn, Mexico, Mo.

B. C. 3500. Is date of the oldest prescription, written on Egyptian stone, which is in the Metropolitan Museum of Art, N. Y.

B. C. 2000. Chinese knew Rhubarb, Aconite, Bark of Pomegranate, Ergot of Rye, Camphor and Canella.

B. C. 2100. King Osimandias (Egypt) wrote above his library "the pharmacy of the soul," another rendering is "The office of remedies for diseases of the soul."

About this period pharmacy was separated from medicine in Egypt.

B. C. 1700 to 1400. There are three Egyptian papyrus, that are as much pharmacopoeias as medical treatises one mentions fifty vegetable substances, another sixty, that were used medicinally, besides those from animals and minerals.

Ointments, clysters and poultices are mentioned.

They appealed to the god who will "slay the slayer."

B. C. 1490 and 1000. The Bible mentions the art of the apothecary or perfumer. Moses probably had this from papyrus mentioned above which he is supposed to have studied.

Apothecary and perfumer were one in Egypt.

B. C. 1300. Chiron, Esculapius and his two sons, this date is an average of nine estimates.

B. C. 460-327. Hippocrates.

B. C. 132-63. Mithriadates and his Mithridate or Theriac.

A. D. 50. Celsus wrote an account of the medical system of his time.

A. D. 65. Pliny wrote a *materia medica*.

A. D. 100. Dioscorides wrote a treatise on *materia medica* and edited a *pharmacopoeia*.

A. D. 117. In Baden near Zurich there were found Roman ruins containing medical pharmaceutical and surgical appliances, medical spoons in bone and silver, measuring vessels, jars and pots, some containing traces of ointments; the latest coins found were those of Hadrian.

A. D. 130. Galen laid the foundation for galenicals.

A. D. 650. The University of Salerno early in the seventh century taught pharmacy and the separation of medicine and pharmacy.

A. D. 750. Early in the eighth century Al Mansur established a pharmacy.

A. D. 806. Arabs produced a *pharmacopoeia* and established apothecary shops.

A. D. 829. Monastery of St. Gall had plans for a hospital and pharmacy.

A. D. 857. Schools of pharmacy arose in the chief Moslem cities.

A. D. 949. Cordova made advancement in medicine greater than any since Galen.

A. D. 1050. Monte Cassino, near Naples, had a monastery hospital, infirmary and pharmacy.

A. D. 1145. St. Hildegarde prepared a *materia medica*.

A. D. 1225. St. Elizabeth of Hungary established a sisterhood to nurse the sick and had a sisterhood pharmacy.

A. D. 1241. Frederick Domkellar presented his apothecary shop to the monastery of St. Thomas.

A. D. 1250. Established a drug store, privileges protected by government in Germany and France.

A. D. 1307. In Ragusa, Dalmatia is now a San Franciscan pharmacy established in 1307.

A. D. 1535. Henry VIII amused himself making cramp rings, plasters and compounding medicines.

A. D. 1540. The citizens of London agreed to buy for St. Bartholomew's Hospital all manner of apothecary wares and all that was necessary for making salves and all other things touching physic or surgery.

A. D. 1606. Louis Hebert, apothecary, came from France, and in 1616 returned and brought out his family.

A. D. 1613. Besler, a pharmacist of Nuremberg, published a work on botany.

A. D. 1625. Dalmahoy kept a shop on Ludgate Hill, where he sold drugs, potions, electuaries, powders, sweetmeats, wares for the complexion, scented hair oil pomades, dentifrice, love charms, Italian masks to sleep in, spermaceti salts, scammony and squills.

A. D. 1698. An English physician reported Paris apothecary shops neat enough, if they were as well stored with medicines.

A. D. 1716. Douglas, an apothecary, was raised to the peerage.

A. D. 1732. Thomas Harwood of Boston wrote a treatise on pharmacy.

A. D. 1785. Stark's Pharmacy, London, established, yet in business.

A. D. 1851. Organization of the American Pharmaceutical Association.

—*Journal of the American Pharm. Asso.*

HOMOLYTIC ANEMIA OF THE PERNICIOUS TYPE WITH VISCERAL HEMOSIDEROSIS IN TUBERCULOUS SUBJECTS. By G. Roque, J. Chali r and L. Nove Josserand. (*Arch. des Mal. du C  ur des Vaisseaux, et du Sang*, 1913, VI, 23. The authors report the case of a tuberculous patient, aged 35 years, who, upon hematology examination showed an unusual blood picture: Erythrocytes, 1,147,000; leukocytes, 2945; hemoglobin, 15% (sahli); Color index, 0.65. Differential Count: Polymorphonuclear neutrophils, 59.0%; lymphocytes, 24.0%; large mononuclears, 7.0%; transitionals, 3.0%; eosinophiles, 2.0%; myelocytes, 5.0%.

The Arneth formula was strongly deflected to the left. The resistance of the red cells was 0.46. There was marked anisocytosis, poikilocytosis, and slight polychromatophilia and granular degeneration. One or two negloblasts were seen to each 100 leukocytes. Coagulation was immediate. The serum was strongly hemolytic. At the autopsy the liver, the spleen and the kidneys were found to contain iron in the following proportions: Liver, 0.269 gm. per 1000; spleen, 0.367 gm. per 1000; kidneys, 0.67 gm. per 1000. The authors consider the anemia to be due to hemolysis rather than to a want of hematopoiesis. The serum of the patient contained an autolysin as well as an isolysin.

ROLE OF TUBERCULOSIS IN THE ETIOLOGY OF MYELOID LEUKEMIA. A. Nanta. (*Arch. des Mal. du C  ur, des Vaisseaux, et du Sang*, 1913, VI, 38.) As the result of the examination of cases reported in the literature and of the study of a case occurring in the hospital service of Dr. Rispal the author concludes (1) that attenuated tuberculosis of the lymphnodes is able to determine a diffuse myeloid hyperlasia which reproduces the syndrome of myeloid leukemia. (2) That in the majority of cases the relation between the two diseases is brought out by the demonstration at autopsy of an old latent tuberculosis; in some cases, furthermore, by the development of granulomata (granulie) which complicate the leukemia and which attack the hematopoietic organs almost exclusively. (3) That the myeloid reaction becomes less and even disappears before the acuity of the infection. (4) That combined lesions of tuberculosis and leukemia may present, whatever may be its significance, a new histologic form, which is devoid, with the exception of the presence of the tubercle bacillus, of the usual histologic picture: foci of necrosis surrounded by zones of myeloid proliferation and containing bacilli. This form is sometimes quite like lymphogranuloma. The author thinks that tuberculosis is able to start up a myeloid reaction accompanied with myel emia, which may be extensive and permanent and of which the symptoms

may be very pronounced. In such cases myeloid leukemia should be considered as a syndrome and not as an iodopathic disease.

A RADIOLOGIC STUDY OF CARDIAC SYMPHYSIS AND PARTIAL ADHESIONS OF THE PERICARDIUM. By H. Vaquez and E. Bordet. (*Arch. des Mal. du Coeur, des Vaisseaux, et du Sang*, 1913, VI, 1). The authors present an interesting study of the application of X-ray examinations to the diagnosis of pericardial adhesions, partial or complete. They have found the flouroscopic study of diaphragmatic movements of value in determining adhesions between the heart, the pericardium and the diaphragm, provided there is no pathologic condition affecting the lungs, the pleurae, or the liver. Adhesions at the base of the heart are indicated by irregular, serrated shadows along the superior border of the heart; immobility of the base of the heart when the patient turns to one or the other side; diminution of or absence of the displacements of the upper third of the cardiac shadow during respiration; and slight changes of the mobility of the diaphragm. Adhesions at the apex are indicated by shadows of the adhesive bands; and by immobility of the apex upon changing the position of the patient. Adhesions in the neighborhood of the diaphragm are indicated by marked diminution or complete absence of the movements of the entire diaphragm or of one side of that muscle. Adhesions to the entire thoracic wall are indicated by diminution or abolition of the movements of the heart dependent upon respiration or change of the position of the patient. In the lateral view the retrosternal clear space is dark during forced inspiration. Posterior mediastinitis is indicated by an abolition of the clear space behind the heart.

In cases in which the adhesions are situated in more than one location a combination of the above mentioned signs will be discovered. In comparing the signs furnished the diagnostician by radiographic examination and by percussion, the authors find that the right border of the heart can be located more accurately by the former than by the latter. The location of the apex beat and its degree of mobility, however, are quite as accurate by the one as by the other. Radiography is of particular value in the demonstration of the shadows of adhesions on the borders of the heart, respiratory displacements of the heart, changes in the movements of the diaphragm; obscuration of the anterior and posterior mediastina. Percussion, on the other hand, is of greater importance in determining the relation of the absolute to the relative cardiac dullness and in demonstrating the absence of influence on inspiration and expiration on the borders of cardiac dullness.

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School Hygiene and Child Life

By SIR JAMES GRANT. K. C. M. G. F. R. C. P. LONDON.

Address before Fourth International Congress on School Hygiene, Buffalo, August, 1913

FEW subjects are calling forth wider or more diversified attention at present than Hygiene, which aims to make growth more perfect, decay less rapid, and death more remote. It treats of the laws of health in the widest acceptation of the term, and includes a knowledge of the causes of ill health, and disease generally, as well as its prevention, and the necessary means of preserving health, by strengthening the whole system. In health all the functions of the body are performed regularly and normally. On the other hand, manifestations of discomfort arouse suspicion that some organ is defective, the result of disease, and it is here our little friends require school inspection, to guard in time any irregularities in life's struggles. The gratitude of every lover of his country is due to those of this Congress, who, at much inconvenience, assembled here, to consider the vital problems of Hygiene.

In fact, we have a drama before us, the fretful lives of a coming generation, for which protection is the order of the day. Observing carefully in its widest aspect, surprise and rejoicing are aroused, at the practical outcome. Since the first meeting of Congress in Nuremburg, 1904, as a foundation of national welfare and prosperity, as well as good citizenship, to promote, so far as possible, healthy infancy, and the genuine principles of Hygiene as advocated by the progressive spirit of the present. Two exceedingly important problems are before us, the consideration of the child outside the school, and in the process of education within the school. As to the success of this Con-

gress, much really depends on the diversified lines of these investigations. To accomplish a good and lasting work, care and inspection of a coming generation should include child life, at home and in the school, as the close affinity of life action, and life saving, must be worked out in a practical and common sense manner, to help on the present generation in the highest development of mental and physical power. In another direction the advice of this Congress is all important. We have not failed to observe the trend of the present generation, to migrate from country to city, and thus change the salubrity of country life and air, excellent food supply, and pure water, for city life, dense population and frequently doubtful food supply, and all this from "The Farm," the very cornerstone of national prosperity.

School life in the country, equipped with educational institutions, a perfect safety valve for the rising generation, and as far as possible, our influence should be exercised to counteract the rush, even in the school period, from country to city. . . . Fully one-third of our entire population gain a living directly from the soil, and actually depend on it for their support.

Health in school life is what we most desire, and advice in this direction will undoubtedly lead to an increased social, educational and moral influence of national concern. City life in an educational sense has prospered at the expense of the country with Hygienic conditions more difficult of control, and we earnestly desire there should be no clash between urban and rural welfare. What we want, and must have, are men and women of mental, as well as physical power, and the isolation of country life, has produced many of our most gifted thinkers.

We earnestly desire that the principles of school hygiene should be imported to our country friends, to strengthen the blessings of country life, by consolidated open schools, perfect in every particular, and churches as well, for the moral and spiritual guidance of our people. Teachers in country school service have a responsibility to perform in this direction, in all of which they will have the advice and council of the Congress.

Child life may be considered under three important aspects. The home, child diet and intellectual development. The home stands first in importance, as the fundamental center of society. Two exceedingly interesting and attractive duties of parents originate and must be carried out here, first as to the child's food, and, secondly, as to its education. . . . The home, whether in country or city, is alike in these particulars. All social movements relating to the welfare of our people, are rooted in the home, which absorbs all socializing agencies, closely connected with the lives of our children. In the home what have children frequently to contend with—faulty houses, poorly furnished

and frequently a planning workshop as a kitchen, no sink or provision for running water, living and bedrooms over-crowded and small; defective air and light; kitchen waste standing near a door, backyards in foul condition and flies in every direction. Sanitary bathrooms with modern conditions frequently wanting. Outside toilets repulsive in character and defective in sanitary precautions. Wells absorbing outside drainage, particularly in the country. Overcrowding is a serious problem and most destructive to life, as seen in the *Tuberculous Rows* of New York City, now chiefly removed by Sanitary Inspectors, greatly to the benefit of the living. In a pinary where trees are closely together, they die rapidly, so with inhabitants in closely crowded habitations, dark and badly ventilated, certain death chambers of undoubted character. When children enter school from such quarters, Hygiene has a difficult task to perform. The body not only starved for want of pure air, but frequently wanting in the supply of healthy, nourishing food. What can School Hygiene accomplish under such trying circumstances? Children born and condemned to live in slums, never have an opportunity of sowing the flower seeds, or watching the flowers grow. How little we actually know of the longings and fancies of such dear little circles, enduring the privations of life cheerfully, and contented with imperfect surroundings. How to lessen the waste and loss of life, the result of defects in living, is a sad problem that faces our generation. Thousands spent annually on live stock, and why not more spent on children, as to care and supervision so necessary for health, strength and education. How frequently the child attending school has the morning appetite destroyed by anti-hygienic surroundings. Robert Hunter (Lit. Digest, July, 1909), states 70,000 children were found in New York schools underfed, and a much more numerous class of children chronically underfed, from food insufficient in quantity, poor in quality and lacking in nutriment. John Spargo in his "Bitter cry of the Children," after careful investigation, states, that in New York, Philadelphia, Buffalo and Chicago, of 40,746 children, 12,121, or 34.65 per cent., had gone to school breakfastless, or nothing more than bread and tea or coffee, a poor outfit for a day's work in school life. Foreign nations, and the English in particular, have frequently debated on the underfed school child. In April, 1905, Sir John Gorst applied to the British Government the words of the Apostle, "They are ever learning, and never come to knowledge of the truth." Poverty or actual want of food is not the real trouble, but domiciliary Hygiene of the poorer classes, careless mothers, late retiring hours, unsuitable meals, and frequently empty digestive organs. Such faults are frequent, and should receive closer attention of parents and teachers. In the period

of youth, the cornerstones of future strength, and constitutional development, are placed to build tissues, possessing the elements of vitality. Air and diet play an important part in holding together the brick and mortar of the system, especially in child life. . . . Great cities and manufacturing centers have a large child mortality. New York has 171 infant deaths per 1,000 and Fall River 260 per 1,000, and in Toronto, Montreal and Ottawa the death rate is high. The influence of mothers, in the life saving of children, *is truly remarkable*. In Berlin, Germany, July, 1909, there were 913 deaths of children fed on cows milk, and only 86 deaths of children breast fed. Of 300 babies recently admitted to the Children's Polyclinic, Dresden, 53 deaths of bottlefed babies, and of 93 breastfed babies, not one died. Medical Health Officers of Birmingham, England, reported recently on the deaths of 3,000 infants, and found only 24 deaths of breast fed babies. Under such circumstances we cannot fail to recognize the important fact that infant life depends greatly on the mother, whose care and watchfulness over the infant should be most zealously guarded, free from want and overwork. Annual horse shows exhibit fine animals, and what we desire and hope for is that yearly assemblies, country and city, the men and women of our land should present a strong, vigorous and healthy turnout, the pride and pleasure of the people, life growing better and happier as years pass on. . . .

Farmers' calves grow just as they are fed, by rich or poor milk. One a prize winner at the fair, but the skim milk calf underfed, not a successful competitor. This rule applies directly to our own half starved and imperfectly fed children. Good food makes good blood and flesh, from which springs good mental and physical power. Mothers' milk stands first for babies, and as the child advances in life, change and variety of food are necessary to produce strong tissue-building blood to meet the wants of the system. The food of the child at school is second only in importance to that of the infant, and here rests greatly the home responsibility of mothers, as to the future of the child at school age.

Practical instructions to mothers on child diet would serve a good purpose, and save many valuable lives. The necessity of a thorough knowledge of the diet of school children is gradually gaining ground, and school authorities are moving more actively in that direction, as tiny brains phosphorescent and scintillating at every movement cannot be too carefully nourished in the formative process of mental development. Nervous troubles and imperfect digestive conditions are closely associated. Penury is a mistaken idea in food supply. For children at school the noon lunch is most important, to brighten, cheer and lessen brain strain,

in the closing of a day's study, the very time when fresh blood is needed for brain cells to avoid excessive exhaustion. Our utmost endeavor should be, most careful consideration of the best and safest method of converting the dross of the market into the finest gold for the development of the highest human endeavor. Next in importance to physical development of the child in our schools is the acquirement of knowledge. Mental hygiene and physical hygiene are inseparably associated in the essential balance of mind and body. The educational system of the present day is gradually becoming more cumbersome and complicated, in fact, quite academic in character, and a serious test of strength to young brains in the plastic stage, budding forth to the period of practical usefulness. The mental and physical well being of youth should advance equally, and one of the most difficult and trying problems is, how to build the best brains out of the material at our disposal. Educated evolution is closely associated with the development of mental power. Each brain, like each blade of grass, is single in character and power and must be studied on its merits to fit it for the varied duties of life. Such course of action is difficult, but the outcome will subserve the best interests of a progressive age. . . . The drawing out of process of education must be conducted with a thorough knowledge of the scientific principles involved, to build the best brains of the material at our disposal. To accomplish unity of purpose, the brain must be in keeping with the strength of the body to accomplish the desired object. Dr. Mandsley, "Gulstonian Lectures, 1870," states: "The time has come when the immediate business which lies before anyone, who would advance our knowledge of mind, unquestionably is, a clear and searching scrutiny of the bodily conditions of its manifestations in health and disease; he must recognize how entirely the integrity of the mental faculties depend on the bodily organization, in fact we must acknowledge the unity of mind and body. In child life we are dealing with crude and rudimentary cerebral pulp, soft and pliant in structure, requiring care to avoid over-mental strain, known to blight many a brilliant intellect an entire lifetime."

The pliant character of youthful brain tissue in the formative process of thought cannot be too carefully guarded. A Scotland Yard detective could not perform the duty. An expert of the highest character, thoroughly informed in physiological and psychological principles, should be at the educational helm to guard life and intellectual endowment. How true is the sentiment of Huxley "Freshness and vigor of youth, must be maintained in mind as well as body." A question frequently asked, at what age should children be admitted to school? Between the fifth

and sixth year the brain grows rapidly, and its interior at this stage of life gives evidence of rapid growth. The receptive faculties come actively into operation, so education should be commenced slowly, gradually and cautiously. Great care should be devoted to the budding evidence of intellectual power, to conserve brain usefulness in after life, for, as the tree is bent, so will it grow. . . .

The general concensus of opinion is that the seventh year is the safest period for the commencement of school training, so much as possible of a playful character, to initiate brain attention without strain. It is remarkable how many go through life with their eyes shut as far as observation is concerned. Our own family of seven children, I first taught to observe, giving to each child a small wide-mouthed glass bottle half filled with sawdust, saturated with alcohol. In playful hours every insect in view was bottled, much to their delight, and a fine collection the result. The acuteness of observation, thus developed, proved of marked educational importance. In the youthful period, outside exercise strengthens the system and fortifies brain power. The special duty of life should be defined early and education so directed as to achieve the best possible results, and in time good *child power* will become *good man power*. In the course of study an occasional day off is a desirable recreation, which keeps both body and mind in a normal state. The gymnasium has an important place in school days for the growth of the body. The gymnastics of brain and body should not conflict with each other. Careful school inspection is fortunately becoming generally adopted. Ten years ago there was only one medical inspector of a school board in the whole of Scotland, and at present not less than 105 such scientific experts, and in England and Wales fully 443 inspectors. In Europe, Canada and the American Republics this progressive idea is very generally adopted.

In Edinburgh an impression is gaining ground that physical culture comes before the Humanities, and Hygiene, reckoned of greater importance than higher mathematics. Simple and inexpensive school buildings are now advocated in preference to palatial, costly stone buildings, as if to last forever. Inexpensive school houses, well heated, well lighted and perfectly ventilated, will serve every purpose and can be razed to the ground, should necessity demand such. In conclusion, I wish to give a practical hint to mothers how to preserve child life. The skin is an index of functional activity, and there must be integrity in the living chain, of which the skin, nerve capillaries and ganglionic centers are but links. The Sebaceous glands, choked with sebum, and the sweat glands, lymphatics and blood vessels, all requiring

rousing up. Friction to the skin by a Flesh Brush five minutes, dry at night and wet in the morning, awakes to a remarkable degree the reflexes of the cutaneous, vascular and nervous systems. For fully half a century I have adopted this practice, and now, in advanced years, enjoy quite a youthful experience, and muscles of entire body firm, healthy and vigorous. The more sensitive the skin becomes the more rapid are impressions received by the brain. Hence the importance of strict attention to the living covering of the body, in all of which subject there is ample scope for medical research as to the prolongation of life through the reflexes of the skin. In educational matters the London County Council, England, has recently taken an advanced step, recommending the appointment of paycologists to assist head masters of schools in the detection of mentally deficient children, quite in line with modern thought, and most welcome as evidence of a truly progressive spirit in mental development. In view of the rapidly increasing importance of Hygiene as a factor in National progress, the masses cannot afford to view lightly the achievements of this Congress. All workers are united as one in a general cause. Science never halts in its onward progress, and research is tending towards a unity of knowledge as a whole. Lives are devoted to the study of nature for the welfare of our race, and the progressive spirit in evidence, a source of encouragement in the evolution of Hygienic power. A vast wave of sanitary science is floating round the world and its ripples felt in remotest parts. The interests of the world are linked together almost as one, so Hygiene in a comprehensive sense, carried out successfully, will tend to sharpen and strengthen right thinking and greatly reduce international ill feeling. Let our education be fortified by the principles of common sense and the outcome will be more lasting and practical, and our present generation better able to stand the tests of a trying age. Hailing as we do from all parts of the globe, to exercise an influence for good in *Child Life* and Hygiene, we earnestly desire a unity of action by this Congress, toward a wide-spread *home education* in the principles of peace, which we trust will be consummated by the Great Powers, to promote uniform happiness and prosperity.

TREATMENT OF TYPHOID WITHOUT MILK. Johnson and Watt, *N. Y. Med. Jour.* mentions with approval in *La Clin. Infantile*, March, 1913, emphasize the value of gelatin, both to furnish energy (4.1 calories per gram, same as proteid and carbohydrate) and to prevent hemorrhages. They use 50 grams a day, prepared with vanilla, lemon, orange, etc., and sugared, four egg yolks and gruels of oatmeal, farina, rice, etc.

Methods of Clinical Coprology as a General Indication For Diet

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CLINICAL coprology has become, in recent years, the basis of a new semeiology of the digestive tract which no physician should ignore if he wishes his patients to profit by a rational calculated diet. In this article only the general principles of these methods and their applications to diet will be considered, the reader being referred for details to the author's *Precis de Coprologie Clinique*, published by Bailliere, Paris, 1907.

I.

Foods have a definite nutritive value and a determined digestibility, while individuals have a definite nutritive power and state of nutrition subject to modification from time to time. Both of these factors must be considered in establishing a diet. It is necessary to know the composition of a food with reference to its absorbable materials. Its digestibility depends upon the form in which it is administered, as raw or cooked in different ways, so that it is equally necessary to understand the modifications to which different forms of culinary preparation lead. There is no necessary connection between the digestibility and the theoretic nutritive value of a food, the most easily digestible foods not being always the most nourishing. The state of nutrition varies according to the individual and in the individual at different periods. It is measured by the general nutritive balance. The digestive capacity varies similarly and is measured by what may be termed the coprologic nutritive balance. It may be added that there is no fixed relation between the digestive power and the state of nutrition, the former depending on an organ, the alimentary canal, the latter on the organism as a whole. Books on dietetics give ample instruction in the nutritive value, digestibility and methods of preparation of foods but are silent as to the coprologic balance, for the reason that the examination of fæces has only recently emerged from the domain of pure science.

II.

What are the methods of clinical coprology? How do they assist, what are their applications, general and particular, in dietetics?

These methods consist in a functional exploration of the digestive organs, being analogous to those with which we have become

accustomed in the elaboration of the urinary molecules by the kidney (cryoscopy), to those which inform us as to the effective work of the gastric mucosa (gastric chemistry), in short, throwing light on the ingesta through the study of alimentary residue so that we may estimate their utilization and thus adapt to the individual digestive capacity a regime whose proximate principles correspond to the caloric requirements of the particular nutritive condition. As Ricardo Lynch has justly said, "A normal digestion is that which not only causes no trouble, but that in which the utilization of aliments is adequate and in harmony with the individual digestive processes." It is because the systematic examination of stools enables us to recognize this utilization that it is to be recommended to the use of the general practitioner.

III.

Of what do the methods of clinical coprology consist? This is not the place to pass in review the different methods proposed. It seems more natural to allude rather to the methods which I have recommended in France since 1904, and as to which I can speak from experience and experimental research. We start from a logical test meal, designed to put into action the different digestive glands and thus test their functional power. It consists of

White bread.....	100 grams
Beef or mutton.....	60 grams
Butter	10-30 grams
Milk	300-500 c.c.
Potatoes	100 grams

The meat is broiled rare, served with bread and butter. It should be cut into small bits and well chewed. The potatoes are boiled, mashed and prepared with milk and a little butter. The rest of the butter is eaten on the bread. This meal should be taken after a considerable fast after the next previous meal, hence, most conveniently, for breakfast. The delimitation of the fæces corresponding to the test meals is secured by the administration of three cachets of carmine powder, 0.30, at the beginning, middle and end of the test meal. The entire stool thus reddened is collected. If there is no hurry, it is well to precede the test meal by a milk diet for two days and, after 6 or 8 hours, resume the milk diet for another day, so that the reddened fæces stand out clearly between the grey or colorless ones, and so as to avoid the stench due to an ordinary mixed diet.

The fæces thus collected are examined as to duration of alimentary transit, general physical characteristics, and also microscopically, macroscopically, chemically and, if necessary, bacteriologically. From the coprologic syndrome thus obtained, certain conclusions may be drawn, to be considered later.

The duration of the alimentary transit informs us as to intestinal motility. A diagnosis cannot be established on this sign alone, but, with other signs, it assumes a real diagnostic value. It is very simple, requiring merely the noting of the time of appearance of the first and the last red stool after the test meal. Its normal limits are 26 to 40 hours, eliminating sources of error due to the quantity and quality of food by depending only on the results of the test meal. With the determination of the ratio between the weights of the dry and the fresh fæces, the duration of alimentary transit is a precise indication of the existence of diarrhœa or constipation. Really, the common notion regarding these two terms is most inaccurate. The mere presence of liquid and frequent stools cannot accurately determine a diarrhœa nor can that of hard and infrequent stools determine a constipation, since neither condition can inform us as to motility, secretion and absorption. The ordinary evidence of constipation or diarrhœa, based on the observation of the patient alone and interpreted by the physician on the say-so of his client, is inadequate. Such testimony should serve merely as a guide to the more attentive study of the fæces.

It is difficult to establish an arbitrary definition of constipation. Some persons in good health have a single daily passage; others have passages only every two or three days and appear not to suffer at all on this account. It would be an error to term them constipated. Masked constipation is also frequent: that is, the patient has a stool every day, regularly, but still the examination of the fæces corresponding to a given test meal, shows delay in the intestinal motor function. However, true constipation may exist without obvious trouble and is often unknown and neglected. Or, there may be true constipation while the patient believes himself to have a diarrhœa on account of the irritation of the intestinal mucosa by indurated scybala.

One should not use the term constipation until, after giving a test meal with carmine, (1) the red stools do not appear until after a longer time than indicated above (26-40 hours); (2) or that they contain a higher percentage of dry matter than normal.

Conversely, the diagnosis of diarrhœa requires (1) that the red stools appear in a shorter time than normal; (2) that they contain a less proportion of dry matter than normal.

Aside from direct disturbances of motility, a prolongation of

the alimentary transit may be due to deficient biliary secretion while a shortening of the transit suggests a deficiency of the pancreatic juice, of intestinal absorption. However, the lengthening or shortening of the alimentary transit may be due merely to trouble in the nervous system, as may be deduced from the absense of assimilable waste in the stools—with special reference to fats.

To determine the proportions of water and dry matter in the fæces, a small quantity of the stool collected after the test meal (small to insure thorough dessication in a reasonable time) is weighed in a tared capsule, and dried in a water (or sand) bath at 100. C., stirring occasionally. When dessication seems to be complete, the capsule is again weighed, then replaced on the water bath for a time and again weighed, till two consecutive readings are the same. The amount of water lost is found by comparing the weights of the fresh and dessicated sample. (Note—Percentages should be calculated on the net weight in each case, subtracting the tare of the capsule). The normal ratio in man, with the test meal, is about 68 per cent. water and 32 per cent. dry matter.

The general physical characteristics of fæces also afford some information. The total weight, with the normal intestinal function, after the test meal, should be about 100 grams, undried. A greater weight, without being of great importance by itself, indicates one of two things; a pathologic augmentation of waste products of the alimentary canal or incomplete digestion or absorption of ingesta, which can, theoretically, be verified by the macroscopic and microscopic or chemic examination of the fæces.

The normal consistence of the fæces should be firm. If liquid, or not homogeneous, pasty like mastic or pommade, further examination is required to locate the abnormality. The form also has a clinical interest. Instead of the normal sausage like moulding, the fæces may be crinkled, hard and dry, scybalous, as in mucomembranous enteritis with intestinal spasm. On the other hand, they may be soft, pasty, diffluent, like cow droppings, in certain forms of colitis with muscular atony. They may be ribbon-like or wiredrawn, in contraction of the rectum.

The odor may also aid the diagnosis. Considering that the test meal contains milk and, especially if it is preceded by a milk diet, the stools should have an odor that is scarcely disagreeable. A putrid, nauseating odor indicates putrefaction which further analysis will determine.

The macroscopic examination, according to Schmidt, constitutes the essential part of the fæcal analysis, but it does not

seem to me to furnish very useful information except in conspicuously pathologic cases. The normal stool, after the test meal designated, should contain neither alimentary debris visible to the naked eye nor pathologic products such as blood and pus. To make the detailed examination of the stool, a small quantity is thoroughly rubbed up in a mortar with distilled water to secure homogeneity and a thin layer in a Petri dish is examined over a black or a white background. With the aid of Koenig's table, various debris can be identified. (Note—It should be borne in mind that this article deals with the stools collected after the test meal. Otherwise, without abnormality, the stool may be very heterogeneous and may show large masses of vegetable debris.) While the normal stool is homogeneous, the pathologic stool includes particles larger than normal, including:

1. Alimentary residue:

a. Remains of connective tissue, yellowish-blue corpuscles of firm consistence, infilaments, indicative of failure of gastric digestion.

b. Remains of muscular tissue, small brownish fragments, like chips of wood, indicative of pancreatic insufficiency.

c. Residue of potato, appearing as opalescent granules, indicative of failure of intestinal digestion.

d. Fatty residue, having a soft, gravy-like appearance, of yellowish white color, indicative of failure of the biliary and pancreatic secretions.

2. Pathologic products from the intestine:

a. Mucus, sometimes as yellowish-grey slime covering the faecal mass and mixed with it, as is apparent when it is stirred with water, letting the material drip from the stirring rod.

b. Membranes. Sometimes there are fibrinous flakes, tubes, ribbons, or shreds with irregular borders.

c. Mucus. Sometimes there are little yellowish globules of gelatinous consistence, intimately mixed with the faeces, difficult to determine macroscopically from potato debris. The distinction between these forms is of the utmost clinical importance, for upon it depends the localization of an inflammatory alteration of the intestine. According to Nothnagel, mucus from the lower part of the large intestine is unmixed, more or less thick and transparent, while that from the upper part of the large intestine is mixed with the non-homogeneous faeces and that from the small intestine is scarcely apparent macroscopically and is intimately mixed with homogeneous faeces.

d. The establishment of pus is important clinically. With it may be mentioned the finding of tumor debris, which is rarely possible.

e. Calculi and concretions. The finding of enteroliths, coproliths, appendicular or biliary calculi, with the presence of blood or parasites, completes the pathologic macroscopic examination.

The microscopic examination is, without doubt, superior to the preceding. Solid masses, suspicious particles detected in the Petri dish macroscopically, or some of the homogeneous mass of fæces, is subjected to examination between slide and cover. Without the addition of any reagent, one notes:

a. Muscular fibres, more or less altered, recognizable by their yellow color, swollen appearance and transverse striations.

b. Elastic fibres, recognizable by their feeble contour and tortuous shape.

c. Yellow bodies of Nothnagel, disposed in heaps, which are considered to be blocks of coagulated albumin.

d. Yellow calcium soaps, with straight outlines, many cornered; also colorless magnesium soaps, otherwise similar.

e. Some starch cells of potato and bread.

In the pathologic stool one notes in addition:

a. Muscular fibres in greater abundance, indicative of failure of pancreatic secretion.

b. Connective tissue fibres, colorless wavy filaments, measuring several millimeters, rarely bifurcated, indicative of failure of gastric secretions.

c. Elastic fibres, voluminous filaments, transparent, highly refractive, wavy, bifurcating and anastomosing in a net work.

d. Residue of carbohydrates, particularly of bread and potato, recognizable by their starch granules and stained blue by a solution of I plus KI, indicating a disturbance of the small intestine.

e. Fatty residue in the form of drops of neutral fat, soluble in ether or chloroform, some amorphous, others shining, more or less tinged with yellow, blackened by osmic acid or colored orange by Soudan III. Fatty residue may also take the form of acicular crystals of fatty acids, heaped together like a pile of needles, or it may take the form of yellow soaps of calcium of polygonic contour. The greater or less abundance of neutral fats, fatty acids or soaps, and their relative proportions, indicate, respectively, biliary or pancreatic troubles.

In pathologic stools, one may also occasionally encounter red blood cells, sometimes leucocytes, more or less degenerated, indicating an ulcerative process in the intestine, or desquamated epithelial cells indicative of a catarrh. There must also be mentioned crystals of ammonio-magnesium phosphate, indicative of intestinal putrefaction; masses of calcium salts without exact significance but perhaps indicative of decalcification: crystals of

cholesterine, whose persistence indicates exaggerated peristalsis; crystals of hæmatoidin, characteristic of intestinal hæmorrhage.

The Chemic examination should determine the following:

1. Reaction, determined with litmus paper is normally, after the test meal, neutral but is affected by many factors. A strict meat diet gives rise to an alkaline reaction, an exclusive carbohydrate diet to an acid reaction, as does a diet rich in fats. I have been able to establish the following two facts: (*a*) that prolonged alimentary transit plus acid reaction indicates motor deficiency of the small intestine; (*b*) that prolonged alimentary transit plus alkaline reaction indicates motor deficiency of the large intestine.

2. Biliary pigments, determined by adding to the stool mercuric chlorid in concentrated solution, are normally colored red, indicating that they are in the form of hydrobilirubin. Pathologically a green color occurs, indicative of the unreduced form, bilirubin, changed in biliverdin by oxidation.

3. The relation of the weight of dry matter to the fresh stool has already been considered.

4. The investigation of the utilization of fats, qualitative and quantitative, remains to be considered. This is, in our opinion, of the highest importance as, alone, it permits an exploration of the function of the digestive canal and a recognition of the functional activity of its various parts and tributaries. This subject was treated in the author's inaugural dissertation in 1905. It is too lengthy to be considered here in detail.

5. Finally, the investigation of the pigments of the blood by the classic reaction of Weber, guaiac and hydrogen peroxid, or one of its numerous modifications.

The bacteriologic examination completes the coprologic analysis. We know that the intestinal flora is in relation with the culture medium. The colon bacillus is always present. In pathologic stools, aside from specific microbes such as the tubercle or diphtheria bacillus, etc., there is an exaggerated growth of many types indicative of intestinal putrefaction, or fermentation more or less limited or combined. The bacteriologic examination is made quite simply by the ordinary staining methods, after a double centrifugalization of a small mass of fæces, first with pure water, then with 90 per cent. alcohol.

Now, what are the practical applications of these coprologic methods in the art of dietetics? I shall not enter into the diagnostic information which they may furnish, as pointing toward insufficient mastication, bad gastric digestion, abnormal pancreatic or biliary secretion, or trouble with the intrinsic intestinal glands, either in the academic sense of establishing a diagnosis

or in their numerous practical indications, but merely point out the general utility of these methods in establishing a rational dietary. The systematic examination of the fæces, particularly the study of the utilization of the fats enables us to judge the degree of utilization of foods and to calculate the ration sufficient for the individual. If we consider only the general nutritive balance, in tuberculosis, for example, nutrition may be deficient because the individual capacity is not determined. When fats are administered in increasing quantity to a tuberculous patient, one may notice at first that he excretes less nitrogen and takes on weight. Hence, it might be concluded that fatty nourishment is the one of choice for tuberculosis. But, if this idea is carried out to an excessive degree or without discrimination, it may be noticed that the weight curve declines and the excretion of nitrogen increases. The same amount of fat that is well borne by one patient may be excessive for a second. The examination of the fæces enables one to avoid such errors, for the moment that fats appear in the fæces beyond the normal amount and in such forms as to indicate that they are not utilized, loss of weight and increased waste of nitrogen are imminent and may be anticipated by the coprologic balance.

Many examples might be cited of the value of coprologic examinations for the nutritive value of food depends upon the coefficient of intestinal utilization, somewhat characteristic of each individual but also varying according to the present condition of the digestive glands. The coprologic methods enable the physician to give foods easily digested by the particular individual, to push them up to the limit of assimilation, to reduce them in case of failure of utilization and thus prevent an excessive demand upon a failing function, and, in short to establish a rational dietary for the individual case, in accordance with the general principle that one lives, not by what he ingests but by what he digests.

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LIME DEPOSITS IN SKIN. Darier and Brocq recognize the following forms: 1, Concrements in senile individuals; 2, true osteoma; 3, various tumors that have undergone secondary calcification; 4, subcutaneous granulomata ditto; 5, subcutaneous phleboliths. Ballot and Nahan, *Bull et Mem. de la Soc. de Radiologie Med. de Paris*, March, 1913, emphasize the value of X-rays in locating small lesions and state that gouty deposits are translucent to X-rays. (Note—We are inclined to believe that old gouty tophi, especially in the chalk regions of England, contain lime and hence would presumably cast a shadow.)

Treatment of Cranial Injuries

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INJURIES so rich in complications as those of the skull naturally present difficult problems in their manner of treatment. There is no injury which necessitates such a careful balancing of all the details of each separate case. Injuries to the blood supply, to the brain tissue, and the later inflammatory or degenerative processes that occur, must be severally and collectively considered in forming conclusions as to the proper treatment.

It is unfortunate that these injuries are so universally classed as fractures, for this leads to undue attention upon the lesion of the bone, to the exclusion of that of the brain. It should not be forgotten, however, that violence which causes fatal injury of the brain, with fracture of the skull, may, under slightly changed conditions, cause the brain injury without the fracture. In a large proportion of cases the fracture is merely an incident, without any direct relation to the unhappy result, or only that of having made the causative lesion possible.

I have endeavored to group injuries of the brain under two headings; first, those of the base; secondly, those of the vault. In injuries of the base, we usually have a fracture extending to and occupying the base of the skull and hemorrhages covering a large area of brain. In injuries to the vault, the lesions are usually local, limited to the bone and overlying soft parts. In these injuries the fracture of the bone is the essential lesion and the treatment is almost entirely directed to it. This class of fracture is usually compound, with a circumscribed depression of the vault, possibly with a rent in the dura. Besides the fractures of the base and vault we often see both combined, the one extending to the other.

As to the treatment of the second group in which the lesion is entirely local, it is usually limited to the bone and overlying soft parts. These injuries are usually produced by a blow from a relatively small body or one having an edge or corner, the fracture is compound, and diagnosis is made by inspection and palpation. When the bone is distinctly broken and depressed it should be raised. If the fracture includes only the outer table, the operation need not be carried further, but, if the entire thickness of bone is broken the deeper as well as the superficial should be raised. If the dura is torn it should be closed, provided there is not profuse bleeding from pia. When, however, there is bleeding from the pia, it should be controlled either by a circular suture of fine cat-gut or packed with gauze. Drainage, however, should not be used, except in uncontrollable hemorrhages, because it predis-

poses infection. When the bone is comminuted, care should be used not to separate it from its periosteum, so as to preserve the bone and thereby save the contour of the skull.

This class of injuries usually make good recoveries if sepsis can be avoided. The reason for the recoveries in this group of cases is accounted for by the fact that they do not suffer from cerebral compression as the injury has performed a decompression in the nature of a compound fracture.

In small perforations caused by nail or pistol shot, the opening should be enlarged for better cleansing and removal of small fragments of bone. Sometimes troublesome bleeding occurs; this should be controlled. Bullets should not be removed unless easy of access, as a stationary bullet causes little damage; the real damage being caused by the bullet in its flight.

The symptoms of the first group, i.e., those in which the injury extends to, and occupies the base, with a lesion of the brain, will vary with the extent of the injury. The chief symptoms are: Unconsciousness, either immediate or later; irregularity of pupils, slow pulse, increased blood pressure, rise of temperature, restlessness and sometimes irritation of various groups of muscles. Symptoms referring to respiration and circulation depend upon the portion of the brain involved. Blood is almost always present in lumbar puncture if the injury is subdural with hemorrhage, but its absence does not preclude extra-dural hemorrhage when the dura is not injured. Hemorrhages from the ear, nose and mouth are highly indicative of fracture of the base, and positively so if free cerebro spinal fluid is present. This hemorrhage is, in a number of cases, life-saving, as it tends to lessen endocranial pressure.

Ecchymosis beneath the conjunctiva, not due to local bruising, is usually associated with fracture of the orbital plate and sphenoid.

In the event of a watery discharge from the ear, the flow being abundant and prolonged, containing little albumen and large quantities of sodium chloride, the fluid will be cerebro-spinal. If it be highly albuminous without sodium chloride the fracture is through the internal auditory canal, the discharge coming from the large arachnoid lymph spaces in the ear. Deafness of the affected side is due to injury of the middle, internal ear or the nerve in its passage through the bone.

Paralysis of the cranial nerves is due to direct injury of the nerve or to intracranial blood pressure. Paralysis of the limbs is due to hemorrhage causing pressure on the motor areas.

In discussing the treatment of fractures of the base, let me quote a recent text-book:

"The treatment of these fractures is medical and expectant;

absolute rest, light diet, laxatives, cold to head if indicated by headache, restlessness, etc."

There is no question but that the treatment of certain cranial injuries is palliative, and the chances for ultimate recovery are increased by no operative methods. Such cases, however, require careful selection. We can say at least that such cases have slight endocranial pressure and loss of consciousness is usually of short duration. There is, however, another class of cases that die of endocranial pressure, and if these could be operated on early enough to prevent serious injuries to the brain, undoubtedly some of them would recover. When severe pressure exists, it will appear quite plain that palliation has little to recommend it. The surgeons have taught the internist most of what he knows about the appendix, gall-bladder, stomach, duodenum and pancreas. The same story will be true of the brain. The surgeons, by repeated operations, will learn more about the physiology and pathology of the brain, and will learn how and when to operate. Indeed there is an increasing number of surgeons who believe in early relief of compression, and the operation for cranial injuries are increasing. A flap of bone should be elevated on one or both sides of the head. An inverted flap may be used, as it gives a larger exposure in which to cope with the blood clots or hemorrhage on the under surface of the brain. Hemorrhage of the base should be dealt with directly when possible. When impossible one of the decompression operations should be performed.

If decompression is necessary the operation suggested by Hudson or E. R. McGuire will give the best result. In doing brain surgery it is necessary to have a full set of Hudson's instruments.

- 1—Keen's Surgery.
 - 2—Modern Surgery—Park.
 - 3—Treatment of fractures—Scudder.
 - 4—Fractures and dislocations—Stimson.
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A CASE OF PULSUS ALTERNANS IN THE COURSE OF A CHRONIC NEPHRITIS. G. Régnier, (*Arch. des Mal du Coeur, des Vaisseaux, et du Sang*, 1913, VI, 97). The author gives the clinical history and polygraphic curves of the pulse in a case of chronic interstitial nephritis with pulsus alternans. There was secondary cardiac hypertrophy. The pulsus alternans appeared during an attack of decompensation and was followed by the death of the patient.

What Will Be the New Standard of Morals?

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MAN has established a double standard of morals, and the individual today challenges the right of society to such a standard. Society is, after all, distinctly utilitarian, while the individual possesses ideals. And ideals are great things; they move the world.

The world is being moved by the sex question. Under the name of eugenics the world is studying the science of sex. Not sex as a mere biologic concept, but in its large public and ethical relations. And the public is right. Naturally, perhaps, the medical profession has devoted attention principally to the pathology of sex, and has developed a special literature bristling with "latencies, erogenous zones, perversions, phobias, symbolisms, fetichism and Freudian technic." An odd admixture of biology and psychology, the writing of the medical sex specialist is definitely at odds with that of the sociologist and moralist.

Not quite to the same extent does the average medical man differ in view from that of the trained layman. Thirty centuries of facing things *just as they are* has taught the physician that, while governments and religion change, while civilization ebbs and flows, the sex question has remained essentially the same. To him modern eugenics present no intrinsically new issues, and what he lacks in enthusiasm he has gained in experience. On him, after the public excitement is over, will devolve the real work in reconstructing public morals. All reconstruction must begin with the material side, and in sex matters the doctor is a materialist. But after him will come the moralist.

In the present stage of the sex uplift movement, it is very unfortunate that the biologic and ethical factors are being espoused in different camps, each unconsciously holding up some standard of morals.

From the biologic standpoint, "nature knows no immorality." Also it is true that the status of sex life as defined by law and religion, imposes a certain degree of biologic inharmony upon the sex instincts of both men and women; but this is not *the only field* wherein law and religion impose restrictions. To read some of the perfervid literature of the day, one would judge that both law and religion existed primarily to repress natural, and therefore proper, sex instincts. Sex seems to be placed above reason, judgment and ethical perspective. The individual sex harmony must not be disturbed, whatever betide society at large in its "other and less important relationships," because society should be reorganized as viewed by "the new conception of sex."

Now, getting away from all glittering generalities, what would

be the cold, practical outcome of such a biologic adjustment of social convention as relates to sex? We would have, as is actually advocated, "early and terminable marriage" as a substitute for prostitution. Instead of a very small proportion of women being prostituted to lust, the great mass of young women would have to forego advanced education in order to lead the sex life with some young chap in "the romantic age," or live like a *Grisette* with the boy in college and in the hope of the marriage holding later on. And the unromantic part of paying rent and the grocer's bill would generally devolve upon the parents of the foolish young pair, or upon the State.

Very logically, indeed, the prevention of conception would be legalized and be generally adopted; and, when that failed, "licensed abortion" would become a socio-political necessity. All of these things are being seriously urged in the "sex literature" of today.

Now, Doctor, if you want to get a point of view upon the practical working of this biologic concept of sex, read this to your wife or daughter. You will get it, and promptly. Then figure out how it would work with your own boy and girl. Does not the mere thought of a series of prophylactic "licensed abortions" upon your young daughter make your blood boil? And yet a contributed article in a journal earnestly striving to solve sex questions, and admirably in some ways, contains just such a scheme of sex salvation. The preachers of the sanctity of sex instincts are overdoing their propaganda, abetted by a small coterie of foolish women who know little of sociology beyond that of the city apartment house and the so-called "problem play."

On the other hand, the opposite proposition of the single standard of morality, by which masculine propensities are supposed to be directed along the same line as feminine, will not be brought to pass by clergymen and reformers. Whatever is accomplished in this line will be worked out very largely by an awakened womanhood, and probably expressed with the ballot.

Essentially right ethically, and possibly biologically, yet the single standard of morals cannot be suddenly brought to pass; it is a question to be solved by the coming generation. In solving it, there will probably be some concessions made. Yet we believe it will rule in some form sooner or later. Assuredly it is too definitely against sound public policy to permit our women to be sacrificed upon the altar of reversion to biology in sex relations, ever to be permitted by the State. And we believe it is time for medical journals to take more conservative views upon the publication of revolutionary papers upon the foundations of our civilization.

While we must leave to religion, ethics, sociology and the

womens' organizations many of the phases of eugenic work, the medical profession should aim for the highest point of sex ethics practically attainable; and let us take up practically the questions of the prevention and cure of the physical, and not so much the psychic, diseases incident to the abuse of the sex function.

Above all, let us be high-toned gentlemen, looking for the best in women and helping them to the attainment of a rounded life in which sex is but a part, and that relegated to its own proper domain approved of God and man.

QUANTITATIVE AMINO NITROGEN CONTENT OF SYPHILITIC AND NON-SYPHILITIC SERUMS. D. M. Kaplan, N. Y., *N. Y. Med. Jour.*, July 26, 1913. After alluding to the argument for the de-aminizing action of the spirochete, furnished by the chemic constitution of salvarsan, etc., most active therapeutically against it, the author gives tables which tend to show that low proportions of amino N are not only diagnostic of syphilis but may even controvert the testimony of the Wassermann reaction, doubts of whose absolute accuracy have already been presented, as by Wolbarst.

Table A—Syphilis confirmed by clinical signs and Wassermann reaction, 25 cases, amino N zero to 2.835 milligrams per 100 c.c.

Table B—Syphilis clinically present but Wassermann negative, 14 cases, amino N zero to 2.248.

Table C—Syphilis clinically absent, in a patient stated to be a virgin, but with positive Wassermann reaction, amino N 14.966.

Table D—Syphilis negated by signs and Wassermann, amino N 3.34 to 15.716, 58 miscellaneous cases.

Table E—Syphilis treated but Wassermann still positive, 2 cases, amino N 1.136 and 2.272.

Table F—Syphilis treated, Wassermann negative, but amino N still low, 1.119 to 2.834, 5 cases.

Table G—Syphilis treated, Wassermann negative, amino N restored to normal, 5 cases, amino N 3.967 to 11.225.

It should be distinctly understood that we hold no brief for Kaplan's contentions, although they deserve the most careful attention. But, with a few more substantiated observations along these general lines, we shall be close to the point of declaring that laboratory reactions, in general, are not absolutely diagnostic, for or against any disease—except such tests as virtually consist of autopsies, as the blood picture of leucocythæmia—and that all forms of testimony, clinical and laboratory, must be weighed in the balance.

The Phosphatic Index: Its Value to Us In the Healing Art

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IN the New York Medical Record, May, 1908, Dr. J. Henry Dowd gave to the profession his original article, "The Phosphatic Index or Pulse of the Nervous System."

Up to this time practically nothing had appeared that might act as an aid in ascertaining the condition of a system that controls and directs every movement of the human body, sick or well.

In presenting the subject it must be admitted as yet scientific points may be lacking, but the therapeutic results have more than born out the immense value of the procedure to be described.

Empiricism, as this may be considered by some, is most aptly combatted by a few paragraphs taken from an article by Sir Dyce Duckwith, British Medical Journal, May, 1911: "Let us have a right conception of empirical. No less an authority than Sir William Hamilton has defined it in these terms, 'Experience founded on observation alone.' As applied to a legitimate practice of medicine in these days it cannot be said that empiricism is experiment or experience without science, for the phenomena of disease are now carefully studied by many men well trained in scientific methods, and the results of treatment are no less rigidly noted as a scientist would note them.

We take note of dogmatic opinions issued from the laboratories in regard to the action of drugs, and articles of diet which in some cases completely contradict the experience of clinical experts.

For example, we find a condemnation of alcohol as a food and remedy at the hands of physiologists who have no clinical practice or experience of the treatment of morbid conditions in their fellow creatures. The physician replies that he is sadly aware of the ill-effects of alcohol when improperly used by man, and the toxic and deadly effects in large doses when used on small animals, but in clinical practice he finds it exceedingly useful for his patients in certain conditions.

In a like manner we are told that strychnine has no action on the heart, and that aconite is of no avail in reducing the frequency of the pulse, but in clinical practice good results come somehow in the use of these drugs."

(With the above opinion from men of the type mentioned, we cannot discard results that have been obtained merely on the ground that it is empirical, for we must not forget that in many conditions empiricism has often anticipated science in medicine. It is known, generally speaking, that urea represents the meta-

bolic process of the muscular system; phosphorus in its various combinations—known as phosphates—represents the metabolism of the nervous system. Phosphorus is one, and, no doubt, the most important constituent of the nervous system, in fact a great scientist has said, “When all the phosphorus is taken, the human race will cease to exist.” Phosphorus, together with its associates, lecithin and nuclein occur in the urine as phosphates, being end products of the above mentioned. Phosphates appear as acid sodium phosphate and acid calcium and magnesium phosphate. Phosphoric acid is partly derived from alkaline and earthly phosphates and partly as a decomposition of lecithin and nuclein, these substances being also taken from the food. In speaking of the phosphates found in the urine, the alkaline variety, those precipitated by an alkaline solution are the ones to be considered, the phosphates occurring in freshly passed urine, or phosphatic crystals have no consideration in the subjects under discussion, they may be ignored.

Professor John B. Shaw in his work on Nervous Diseases says, referring to neurasthenia, a condition that can cover practically all conditions, “This inherited unstable state of the nervous system depends evidently upon some defect in the power of the neurons to assimilate and store up nutrition and force in sufficient quantities and with sufficient rapidity to carry on fully and easily the work of life.” We must, therefore, assume that nerve cells prepare for their work or outlay of energy by food that nourish them and in common with other structures of the body are capable of accumulating a reserve which can be held in store for times of emergency, times when through illness sufficient food is not taken, or from other causes when consumption is not equal to the demand.

Have we not a practically analogous condition with other organs; there are two eyes, lungs, kidneys, etc., one is only absolutely necessary, the other is the reserve.

The all important substances necessary in the nourishment and upbuilding of the nervous system are phosphorus, lecithin and nuclein, these are taken from our food, and providing digestion and assimilation are normal, sufficient quantity is taken, not only for the daily calls for energy, but an excess which is stored.

Although phosphates vary at different parts of the day and to a certain extent by diet, it will be found that irritation of the nervous system, especially hypersensibility or irritability of the nerve cells plays the most important part in increasing them. If this is allowed to continue to any degree, it will in time cause a depletion of the reserve ending in variable systemic prostration due to nerve cell starvation; this is commonly called neurasthenia.

J. C. Clemesha, in the New York Medical Journal, in his article, "The Dowd Phosphatic Index: Its Relation to Diseases of the Eye," most aptly sums up this condition as follows:

1. Normal output of phosphates with normal size and shape of crystals showing the metabolism of the nervous system in health and normal conditions.

2. Excessive output of phosphates, shown by high phosphatic index, an increased metabolism of the nervous system due to hypersensibility or irritability of nerve cells; the crystals are generally small in size.

3. Decreased output of phosphates shown by a low index, a condition due to a lack of nuclein and lecithin reserve.

4. We may have the normal amount of phosphates, but the crystals are light in weight though normal in size, showing an ill regulated nervous balance wheel. Amorphous crystals are found at times, and show a degeneration of nerve tissue.

The phosphatic elimination or phosphatic index was determined by Dr. Dowd after an extensive series of urinary examinations from people in as normal a state of health as possible, and free from all nerve irritation. The index was made from the second urine passed in the morning, and if correct readings are to be obtained with the phosphatometer this point must be strictly adhered to. The following points will be of great value in arriving at the true condition.

Anything that markedly increases the urine, such as chilling the body, diuretics or liquor, must be taken into consideration and another sample used if necessary.

The same may be said of a decreased quantity.

When in an apparently healthy individual the index is very high, enquiry should be made as to a possible shock, or irritation of the nervous system shortly before the sample was passed—it may be only transitory.

Where the crystals all appear amorphous it is well to enquire as to the patient's previous twenty-four hour conduct, a late supper with liquor, tobacco, etc., in excess will so change the crystals that all may appear amorphous, yet there may not be any degenerative changes going on.

The modus operandi is very simple, and is as follows:

Fill phosphatometer to "U," add solution (this accompanies the instrument) to "S," and set aside for ten minutes. At once a precipitate should form varying in degrees of density according to the amount of phosphates present. It is important that the reading should not be made until the expiration of ten minutes.

A plus index SOLID above "NP" indicates an irritation of the nerve cells, nervous metabolism is increased and will continue so unless sedatives are given and the cause removed.

A minus index, one that will not sink, sinks part way and is

light and fluffy or goes below "NP," indicates nerve cell starvation, and no matter what may be the case under consideration, but little or no improvement will be forthcoming until the nerve cells are supplied with proper nourishment.

The consideration of nerve food is a very important one, inasmuch as when phosphorus is indicated, it must be given in its elementary form and not as a compound in pills or tablets. Of late much has been written on this subject and all agree (J. A. M. M. and others) that phosphorus is not obtainable from hypo, or glycerophosphates, phosphoric acid mixtures from tablets and pills.

Besides the Phosphatometer, we, as physicians, owe much to Dr. Dowd as the chemist who gives us a preparation which contains free phosphorus as is proven by smell, taste, fumes, its luminosity in the dark.

There seems to be no one place for the Phosphatometer and the phosphatic index judging from the reported cases of Drs. Ben-net, Clemesha, Decot and other oculists; Diehl in skin; Chauncey P. Smith in surgery; Walsh, Talbot of Niagara Falls and Kelly of Grand Rapids in general medicine, and Haines of Pennsylvania in gynæcology. In fact, as Dr. Smith says, "The Phosphatic index should be a routine in all medical examinations, as it gives more information than practically any other scientific test we have at hand; Phosphorus, when given in its free state, gives immediate and permanent results."

On account of the great number of cases reported already, many of which have been treated for some time without results and in which there was almost immediate improvement after treatment as directed by the phosphatometer, I will add but one case, and in doing so must state, this patient had been treated for some time without any result whatever. Mrs. L.—There was no organic trouble, the condition was purely functional, but to a degree that living was almost a burden. Symptoms varied at times, neuritis was most marked, involving different parts of the body in succession, the bladder suffering most and the condition accompanied by frequency of urination and great pain. There was also a marked dyspepsia accompanied by gas accumulation. Space will not permit me to give a detailed report. She remarked, "I scarcely see a well day." On taking her index it was found to be 90 per cent minus, a condition of nerve cell starvation being plainly shown. The Dowd Comp. Phos. mixture was ordered in 30 drop doses three times a day, about 30 to 40 minutes after food. The improvement in this case was marvelous, inside of 48 hours she reported improvement, in two weeks she was entirely free from pain, failing strength had returned, appetite increased, also weight, all dyspeptic symptoms had vanished. This patient was well two years afterward.

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Eugenics and Sentiment

Sentiment is justly regarded as inappropriate to medical journalism, but certain aspects of the modern campaign for eugenic marriages suggest that there may be a practical side to sentimental views. First of all, we advocate strongly the old-fashioned view that the basis of marriage ought to be love, meaning by love neither lust nor cold-blooded esteem, but a decent, hearty, sex-attraction strongly individualized. How, further, to reduce love to a schedule and to decide in advance whether it is adequate to withstand the trials of future married life, we do not know. We have seen disastrous results from long engagements, founded on previous friendship and every apparent favorable circumstance as to family acquaintance, heredity, community of tastes and social standing, and we have seen ideal marriages after elopements or very short acquaintance and with every conceivable difference of taste and environment that ought theoretically to have caused trouble. And, to be fair, we must concede that one of the most fortunate marriages that we have observed, followed a perfectly business-like search for a wife able to support a husband in the style to which neither he nor his family had been accustomed for several generations.

Even from a cold-blooded standpoint, it must be conceded that love, as a basis for marriage, is not entirely unscientific. The influence of psychic states on physical phenomena is supported by good authority. In particular, we know that digestion

and nutrition depend very largely upon appetite, so much so that considerable differences in nutritive value and theoretic digestibility must be disregarded in selecting foods. The very fact that the analogy to reproductive processes has been so widely and so coarsely recognized is the best evidence that the analogy, as applied to eugenics, is a genuine one.

While marriage must be frankly recognized as a sex-relation, various social institutions and, most important of all, the maintenance of marriage and proper support of and care for the rising generation, demand that the idealized conception of sex, gradually developed in the evolution of man to a state of enlightenment, must be maintained. The family cannot be preserved if conventional developments are so radically changed that the differences between men and women are reduced to their original anatomic and physiologic basis. This statement, however, should not be construed to represent a reactionary antagonism to all forms of progress and of adaptation of customs to modern requirements. While the editor acknowledges a considerable degree of conservatism in regard to the modern extension of women's activities, care must be taken not to confuse prejudice with principle.

There is one important item in which conventionalities, in regard to sex are bound soon to raise an issue. Very properly, the medical profession and sociologists generally are advocating medical examination as a prerequisite to marriage. Such examination is already legally required by some states and the requirement will undoubtedly soon become quite general. But, if we stop to consider the matter, not in the abstract but in the very concrete form in which it will be presented to individual engaged couples and their families, it will become evident that the literal application of the requirement to young women is decidedly objectionable from the conventional standpoint and the examination will, undoubtedly, be reduced to a rather nominal degree. Unfortunately, too, as all of us know from individual acquaintance, there are instances in which such examination is desirable even from the same crude standpoint frankly admitted for men. Hence, the legal requirement of an examination cannot fail to produce, in a small but appreciable percentage of cases, a sense of false security and to lead to recriminations, especially of the examiner. Only recently we have noted the marriage of very attractive but decidedly damaged goods, and it is perfectly possible that the damage may include actual danger from the standpoint of eugenics. We have also been impressed with the frequency with which widows, of either kind, have, without personal blame or realization, visited the sins of one

husband upon the offspring of the successor. Yet, with all allowance for such unfortunate cases, it is very questionable whether the ultimate results of a thorough physical examination of all prospective brides would not exceed, in indirect social disadvantage, the direct benefits of detecting disease of various kinds.

It must not be forgotten that, while eugenics has recently assumed an unprecedented quantitative importance in medical and sociologic literature, it is by no means a new subject nor one on which the laity are entirely uninstructed. It is true that there has been a gap of many years between empiric and modern scientific eugenic legislation, but the realization of the general principles has been very wide spread and, to a surprising degree, put into actual practice. Every physician can recall necropsies requested to settle the question of cancerous heredity, in the interests of sons and daughters of marriageable age, of engagements broken because of tuberculosis or merely because one or other party was "sickly," of young men soliciting gonococcus tests. There is urgent need, not so much of popular instruction as of accurate tests of ideas as to heredity held by the profession, to insure against the teaching of erroneous doctrine.

Deaths From Violence

"Physician, heal thyself," is an irony older than the English language. At present, the admonition needed is to avoid death by violence. For the entire population, violent deaths comprise about 7.5 per cent. of the total. Of these, about one in six is by suicide. Theoretically, physicians should have a mortality by violence corresponding to the more fortunate class of the population. Actually, their mortality by suicide alone is almost as high as that of the entire population by all forms of violence. Judging from recent reports—it is too early to present statistics—automobile and other accidents and deliberate killing are removing altogether too large a number of our profession. Are we wrong, then, in suggesting greater caution, greater self control, perhaps even safer associations?

Distribution of Population by Ages

Medical articles dealing with the incidence of diseased conditions frequently contain false statements or implications, due to neglect to consider the number of persons of any age group, to whom the law of chance applies. In any ordinary community the sexes are nearly equal though females exceed males at birth (more sown of the better crop), slightly throughout life and considerably as age advances. The following statistics are based,

respectively, on reports of about 30,000,000 in registration areas, taking the population as it runs, which, on account of immigration, exaggerates the number of males and active adults, and on a similar series of about 3,000,000 born of native white parents:

Age.	% native born of native born.	Total to age limit.	% whole population	Total to age limit
Under 1 yr.	2.4		2.1	
1-4	8.8	11.2	8.1	10.2
5-14	20.6	31.8	19.	29.2
15-24	18.2	50.	18.9	48.1
25-34	15.1	65.1	18.2	66.3
35-44	11.9	77.	14.	80.3
45-64	16.4	93.4	15.	95.3
Over 65	6.2	99.6	4.4	99.7
Error due to unknown and estimating fractions	.4	100.	.3	100.

Note that the first age period given is for a single year, the second for a four-year period, the next to the last for a double decade and the last for a span of about forty years. With these allowances, it is apparent that the number of persons living steadily decreases as the age-period is advanced. This is due not only to the cumulative mortality but to the fact that each decennial period represents an aggregate population of about 10 per cent. more than the next older, on account of the excess of births.

For example, a disease with no special age incidence, would have its mortality almost equally divided between those under and those over 25; so, too, about half of its mortality would fall between the ages of 20 and 50. On the other hand, the statement that the susceptibility is very slight in the aged, loses much of its significance when we consider that less than 5 per cent. are over 65. It must be remembered, also, that for many diseases, especially the semelincident, exanthematous infections, the actual greater incidence and mortality at early ages need not indicate any special susceptibility according to age. By the law of chance the majority of persons will be exposed fairly early in life and will, thereafter, be immune.

Let us test the general idea that tuberculosis is especially a disease of adolescence and early adult life and see how it works out. Statistics of 1900 will be used, simply because the Census Bureau has not had a sufficient appropriation to publish the 1910 figures.

Of 109,492 total deaths from consumption, 8,036 (less than 8 per cent.) occurred before the age of 15, whereas nearly 30

per cent. of the population are included in this period. From 15-19, a little over 9,084 succumbed, corresponding very closely with the average mortality to be expected. From 20 to 24, nearly 16,000 succumbed, showing a mortality about $1\frac{1}{2}$ what would be expected for an average incidence with special age susceptibility. From this point on there is a very gradual relative decrease, but it remains about $1\frac{1}{3}$ the average on the hypothesis of an equal susceptibility at all ages, as late as the 20-year period 45-64, and is fully as high for advanced ages. In other words, for some reason or other, there is an actual escape from consumption up to adolescence, a relative increase reaching almost exactly the theoretic average for adolescence, and a very slight relative predisposition for early adult life, probably no more than is to be accounted for by the law of chance in infection, as stated for the semelincident diseases.

For cancer, the general idea is correct, but its full force is scarcely realized. The cancer mortality is very small (about $1\frac{1}{3}$ per cent. of the total cancer deaths) up to the twentieth year. For the next three quinquenniums it progresses by geometric series, by 2, but is still small. Up to the twenty-fifth year it is a trifle over 2 per cent. of the total, although the population up to this age amounts to over 48 per cent. of the total. The cancer deaths increase actually, from quinquennium to quinquennium, in spite of the fact that the population of corresponding ages is diminishing up to the sixty-fifth year. Forty-five per cent. of all cancer deaths occur in the 20-year period between 45 and 64, comprising only 15 per cent. of the population. While, after this, the actual numbers by quinquenniums, decrease, the proportionate mortality continues to increase so that 35 per cent. of all cancer deaths occur in a population over 65, amounting to less than 5 per cent. of the total.

Looking at the matter from a different standpoint, we get somewhat different results. Under 20, about 1 death in a thousand occurs from cancer; from 20 to 24, 1 in 250; from 25 to 34, 1 in 77; from 35 to 44, 1 in 24; from 45 to 54, 1 in 11; from 55 to 64, 1 in 12; over 65, 1 in 20. The discrepancy is easily explained. From the standpoint of the living population, the tendency to death from cancer constantly increases, but, as age advances, so many trivial causes may result fatally, that the actual chance of dying of cancer is relatively lessened. Probably, if exact statistics were available, it would actually be shown that a great many old persons, dying of pneumonia, etc., actually were cancerous.

It would be interesting to continue this study further, but enough has been said to illustrate the importance of considering how many persons of any age group there may be, before jumping at conclusions regarding special tendencies to death from any given disease.

We append the American table of mortality:

Age	Number Living	Number Dying Each Year	Age	Number Living	Number Dying Each Year
10	100,000	749	53.....	66,797	1,091
11	99,251	746	54.....	65,706	1,143
12	98,505	743	55.....	64,563	1,199
13	97,762	740	56.....	63,364	1,260
14	97,022	737	57.....	62,104	1,325
15	96,285	735	58.....	60,779	1,394
16	95,550	732	59.....	59,385	1,468
17	94,818	729	60.....	57,917	1,546
18	94,089	727	61.....	56,371	1,628
19	93,362	725	62.....	54,743	1,713
20	92,637	723	63.....	53,030	1,800
21	91,914	722	64.....	51,230	1,889
22	91,192	721	65.....	49,341	1,980
23	90,471	720	66.....	47,361	2,070
24	89,751	719	67.....	45,291	2,158
25	89,032	718	68.....	43,133	2,243
26	88,314	718	69.....	40,890	2,321
27	87,596	718	70.....	38,569	2,391
28	86,878	718	71.....	36,178	2,448
29	86,160	719	72.....	33,730	2,487
30	85,441	720	73.....	31,243	2,505
31	84,721	721	74.....	28,738	2,501
32	84,000	723	75.....	26,237	2,476
33	83,277	726	76.....	23,761	2,431
34	82,551	729	77.....	21,330	2,369
35	81,822	732	78.....	18,961	2,291
36	81,090	737	79.....	16,670	2,196
37	80,353	742	80.....	14,474	2,091
38	79,611	749	81.....	12,383	1,964
39	78,862	756	82.....	10,419	1,816
40	78,106	765	83.....	8,603	1,648
41	77,341	774	84.....	6,955	1,470
42	76,567	785	85.....	5,485	1,292
43	75,782	797	86.....	4,193	1,114
44	74,985	812	87.....	3,079	933
45	74,173	828	88.....	2,146	744
46	73,345	848	89.....	1,402	555
47	72,497	870	90.....	847	385
48	71,627	896	91.....	462	246
49	70,731	927	92.....	216	137
50	69,804	962	93.....	79	58
51	68,842	1,001	94.....	21	18
52	67,841	1,044	95.....	3	3

Standards of Spelling, Etc., Adopted for the Buffalo Medical Journal.

So far as practicable, the following rules are adhered to, although in original contributions, correspondence, etc., the same individual freedom is conceded as in the expression of opinions as to medical matters:

1. Excepting practical, technical, physical, clinical and the adjective chemical used as a noun by omission of the word substance, understood, Greek adjectives in -ic, are not lengthened by the Latin ending -al.

2. All Greek words beginning with R, were sounded with a preliminary H. In transcribing in Roman letters, this is written Rh, just as we write what and pronounce it hwat. This fact should not be forgotten in such words as Rhachitis, rhaps, etc., nor should the doubling of the final r of syllables, by beginning the next syllable with rh, be forgotten, as in diarrhoea, nor even in catarrh, in which the rest of the syllable has been dropped.

3. As English is a very mixed language, which cannot be spelled phonetically except to a very limited degree, and then by arbitrary sound indicators, unless the alphabet is radically changed and increased to about thirty-six letters, we prefer to adhere to the established conventional method of using the ph instead of f, ch instead of k, œ and æ instead of e, etc., instead of the so-called simplified spelling, of classic words.

4. The established spelling instead of the simplified is also preferred in English words, as in writing the præterit and participial with -ed instead of -t.

5. The same word, unless a temporary compound or a chemic term in which a variety of suffixes are necessary to indicate special modifications, should not contain parts derived from different languages. Thus, amygdalitis should be written for tonsillitis, dodecalitis for duodenitis, proctitis for rectitis, splanchnopenia for visceroptosis, superacid for hyperacid, etc.

6. Use regular forms instead of irregular so far as possible. Proved is not only preferable to proven for this reason, but because the verb was originally of the weak (regular) conjugation. The choice between English and foreign endings for the plural, etc., should depend upon how perfectly the word has been assimilated, and is, therefore, largely a matter of choice. If the foreign ending is chosen, be sure that the right form is used. Do not say spermatozoæ and remember that comitia and scybala are already plural.

7. In regard to mood points in syntax, analyse the expression,

remembering that English grammar, while very elastic, is almost absolutely logical. Do not say that far, but so far. Remember the distinction between no and not, and say whether or not. The Civil War decided the propriety of the expression, "The United States is," and any noun referring to a group may be considered singular or plural at will, providing that some consistency is observed and that we do not say that the laity or the profession is, in one sentence, and that the laity or the profession are in the next. But this latitude applies to verbs, not to demonstrative adjectives, so do not say "those kind." Moreover, the singularity or plurality of the verb must depend on the noun which is its subject and not on another noun connected to the former by of. We are on the fence as to whether none is strictly no one run together, or whether it is a collective and therefore may take a plural verb. The preceding sentence illustrates the view that there is no sense in requiring the repetition of an understood subject before each verb in a sentence merely because the verbs differ in mood, tense, etc. Don't let arbitrary authority blind you. "No body's else" is exactly as irrational as "Mr. Smith's Senior." There are many men who would rather split a fee than an infinitive. To avoid offense, we split infinitives as little as possible, but we can see no more objection to placing an adverb between to and the infinitive than between any other preposition and a gerund, or between an auxiliary and the principal verb, or to placing an adjective between a preposition and a noun.

8. While English is a very elastic and flexible language, don't stretch it too far in the endeavor to make one word do the work of several. When we read that Dr. A. operated a case and, if unsuccessful, posted it, it is a little too suggestive of such personal notes as that Mr. B. sundayed at East Nineveh.

We have had a few complaints about delay in publishing Mss. It should be understood that everything except news items is in the printers' hands on or before—sometimes two months before—the fifth day of the month preceding the date of issue. This is a physical necessity for all publications except those of a scale warranting the maintenance of an individual printing plant of considerable magnitude. Late in August we received Mss. absolutely promised in time for the July issue. The author made the promise in good faith, but important professional duties prevented him from fulfilling it. This is merely one illustration of the necessity of planning THE JOURNAL in advance. There are also other reasons, as seasonableness, desirability of grouping in one issue various articles dealing with related subjects, undesirability of printing in successive issues or those nearly

related in time, papers on subjects recently treated or by authors recently represented, all of which reasons tend to delay publication for a few months.

Two years ago there was threatened a deficiency of original contributions, and we, therefore, planned, an issue in which the Abstract Department should be enlarged to fill a proportionate amount of space. The time for this special Abstract number has never arrived, but there are other reasons than a lack of original articles that favor the issue of such a number occasionally. We intend, therefore, to publish all Mss. on hand, as rapidly as possible; in fact, they are already in the printer's hands. This material will be exhausted by the February issue. Short articles can, however, be published earlier, and we shall not unduly delay the publication of longer communications for the sake of hurrying the Abstract number.

We would be greatly obliged for assistance in reviewing exchanges and in preparing abstracts. This request is not made for the sake of relieving the editor, since ordinary medical reading supplies an abundance of material for abstracts and the work of putting them into proper form for publication, instead of preserving notes for personal reference, is not very great. But work of this nature is of great value to the one who does it, and, by enlisting the services of a number of reviewers, a broadness of scope and of critical selection is assured, which renders the matter of greater value to readers generally. Many of the abstracts already published represent contributed work, which we acknowledge with thanks, and which would be indicated in the JOURNAL except for the modesty of the reviewers themselves. We do not wish to usurp credit due to others and shall be glad to publish contributed abstracts over the name or initial of the reviewer, if desired.

One of the best features of medical journalism, particularly in this country, is that the editors are mostly men engaged in actual practice. Some of the largest and most elaborate journals have been subject to criticism mainly because the view point of the editor was that of a man at a desk. The breadth of view resulting from daily contact with patients and the personal, continued experience with the exigencies of practice, is almost as necessary in the consideration of topics of ethics and professional polity as of strictly scientific and practical nature. But this great advantage cannot be secured without incurring the danger of lack of attention to minor details, and the more serious one of personal bias. The greater the number of individualities impressed on a journal, the more valuable is it. Even in matters of news the same holds good and the many favorable comments received as to this JOURNAL are due to the very loyal and extensive co-operation of its readers.

OUR CONTEMPORARIES

Medical Ethics Up-to-Date

New Zealand Medical Journal, June.

1. If called by night to attend a stranger at a distance, dress quickly and go, never stopping to ask who wants you, or if the bill will ever be paid, lest you be counted inhuman.
2. Never ask how many doctors are in attendance in a case, or how many kinds of patent medicines a patient is taking. Such curiosity on the part of the doctor is vulgar.
3. Never insult a stranger by asking for credentials, nor a patient by asking for money—pounds and shillings are the vernacular of bankers, lawyers, tradesmen, and “workers.”
4. Never send in a bill; patients will think you are hard up, but pay *your* bills promptly. Send a check, it looks better.
5. In writing a prescription write illegibly. It does not matter. The druggist will put in “something just as good.”
6. Be sure to mention the fact of your being overworked, and also cholecystitis, appendicectomy, opsonic index, operative work, toxæmia, words which impress the laity. Your wife must tell her friends how busy you are.
7. When going by a patient's home slip in socially and tell her of some interesting case, or some operation you have just performed, and incidentally mention how busy you are.
8. Never be friendly with any other doctor. It's unethical. If you think another doctor makes a guinea more a month than you do, cut him dead.
9. If another doctor's name is mentioned in your presence compress your lips, and the patient will understand that your hypertrophied good principles keep you from telling the truth, the whole truth, and a few other things. Do not have your principles so high you can't reach them.
10. If called in after another doctor has been treating a case of meningitis, make your diagnosis “inflammation of the brain,” and be sure to say how much better it would have been had you been called in earlier.
11. It is understood that you would not interfere with gestation, but it is well to tell of the large sums of money you have been offered and refused.
12. If the other fellow does not think as you do, it proves his inferior intellect.
13. Jealousy and envy are the tributes paid to superiority.
14. Do not expect the “glad eye” when you give the “cold shoulder.”
15. We have not enough “skin specialists” in the profession to offset the “wasters” in the laity.

16. Try not to have views. They are distressing—especially to others. If you must think, do it as quietly as possible.

17. Pretend that you are more skillful and proficient than others, and people will soon take you at your own estimation, especially if you can raise a small band of touts and claquers.

18. Endeavor to like each other, but if you can't—don't.

“WHY DISCRIMINATE,” says the Christian Science Sentinel, editorially, in its issue of August 16, referring to indictments against parents of victims of tuberculosis, etc., who have not had medical attendance. It quotes testimony in court showing cures of stomachs, kidney and heart trouble, consumption and various other ailments by Christian Science, after medical treatment had failed. It regards as unfair the fact that coroners ignore death occurring in patients of regular physicians. First just a word as to testimonials of cure. We are very skeptic of the ability of anyone, whether he knows anything about disease or not, either to diagnose, prognose or treat his own case. A grateful, though not discriminating patient, offered us a testimonial of cure the day before his sudden death, which had been foretold to his family. One of our old friends, a physician of ripe experience and sound judgment, died of a disease which he would have recognized clearly in a patient but of whose existence in his own case, he had not the slightest suspicion. Now, as to the unfairness of the discrimination. The law displays exactly the same unfairness in holding that the ordinary citizen may not kill and that the soldier, under certain circumstances, may; that the ordinary citizen cannot order another to stop, go ahead, turn to the right or left, or refrain from turning off a street when he wants to, but it gives this power to the policeman. Similar privileges are given to the plumber, the lawyer, many other persons each in a particular way and for a particular reason. The law cannot demand of any human being, superhuman ability, and it cannot, therefore, insist on success, merely on reasonable standards of preliminary qualification, good faith and attention to duty. Any Christian Scientist has the right to treat disease and to sign death certificates, if he will comply with the same requirements demanded of anyone else. There is no ultimate unfairness in this; it would be unfair to give to the Christian Scientist the privilege of a short cut to the prerogatives of the physician, the policeman, the soldier, the plumber, the pilot, the engineer and a host of others who undertake special responsibilities. *Why discriminate against a sick child because his parents are Christian Scientists?*

TOPICS OF PUBLIC INTEREST

Resolutions

Offered to the Fourth International Congress of School Hygiene at Buffalo, August, 1913, by S. Adolphus Knopf, M. D., N. Y.

Whereas, Nearly a million tuberculous children, or children strongly predisposed to tuberculosis, are attending our public schools, and there is hardly accommodation for 1500 to receive instructions in the open air; and,

Whereas, The Congress is convinced that the open air school is one of the most powerful agents in the prevention and cure of tuberculosis in childhood, and it has been furthermore demonstrated that nearly all climatic conditions, providing the air is dust-free, lend themselves to the prevention of tuberculosis in the predisposed and the cure of the afflicted; and,

Whereas, Statistics show that there are not nearly enough hospital and sanatorium accommodations for adults and children afflicted with pulmonary tuberculosis or children suffering with tuberculous joint or bone diseases; and,

Whereas, It has been demonstrated in New York and other cities that discarded vessels lend themselves admirably to transformation into all-year-round hospitals and sanatoria for consumptive adults, sanatoria for children afflicted with joint and other types of tuberculosis, and into open air schools for tuberculous, anemic and nervous children;

Resolved, That the Fourth International Congress on School Hygiene petitions the United States Government to place at the disposal of the various States of the Union as many of the discarded battle ships and cruisers as possible to be anchored according to their size in rivers or at the seashore and to be utilized by the respective communities for open-air schools, sanatorium schools for children, or hospital-sanatoria for adults. Be it further

Resolved, That the Congress expresses its appreciation to the Italian Government of the example it has given by consecrating three of its discarded men-of-war to the combat of tuberculosis. Be it further

Resolved, That this Congress expresses the sincere wish that other governments may follow the example of Italy; and be it finally

Resolved, That copies of these resolutions be presented to the American and other governments represented at this Congress.

SCHOOL FOR HEALTH OFFICERS, CONDUCTED BY HARVARD UNIVERSITY AND THE MASSACHUSETTS INSTITUTE OF TECHNOLOGY. Beginning this fall, Harvard University and the Massachusetts Institute of Technology are to maintain in co-operation a School for Public Health Officers; will confer a Certificate of Public Health (C. P. H.), signed by both President Lowell and President Maclaurin. The object of this school is to prepare young men for public health work. Graduates of colleges, or technical and scientific schools, who have received adequate instruction in Physics, Chemistry, Biology and French or German, may be admitted. The medical degree is strongly urged, but not required. The Administrative Board consists of Prof. William T. Sedgwick of the M. I. T.; Prof. Milton J. Rosenau and Prof. George C. Whipple of Harvard. Prof. Rosenau is director.

COCAINE. The U. S. Dept. of Agriculture requires a formal statement, on blanks furnished on application, from all importers and dealers in cocaine or coca derivatives, setting forth various details, declaring that the drug is to be used in good faith. Both the national and the state governments have surrounded the use of cocaine with many troublesome though well meant restrictions which the physician should bear in mind.

CHIEF BACTERIOLOGIST. The U. S. Civil Service Commission announce a competition, closed October 6, to fill a vacancy in the Dept. of Agriculture. No formal examination will be held, but statements of qualification must be filed. An M. D. or Ph. D. degree or equivalent training and at least seven years' practical experience in bacteriologic and pathologic work will be required. It is, therefore, not surprising that the lower age limit is set at thirty, the upper at fifty. The salary is \$3,500, and Uncle Sam is evidently looking for a \$5,000 man.

MISBRANDING INSECTICIDES. The U. S. Dept. of Agriculture announce a legal decision in a case against the Calvert Drug Co. of Baltimore, following the seizure of packages of "Peterman's Roach Food." Wheat flour, etc., used as bait, and obviously not possessing insecticidal properties, were not mentioned in the analysis on the label. This was construed as misbranding, though the court provided that the goods should be released on condition that the defendant gave a bond that they should not be sold until the label should be altered to show either the names and percentage amounts of all inert ingredients or else the names and percentage amounts of all ingredients having insecticide properties and the total of inert ingredients. So far as we understand the circumstances, this case involves no criminal intention on

the part of the manufacturers or their dealers. While, on first thought, the general principle that every article should be sold for what it really is, receives our support, it must be borne in mind that there are a great many compounds of a more or less secret nature, which are affected potentially by this ruling. Metal and varnish polishes, cleaning compounds, lubricating oils, etc., may be mentioned. Substances of this sort support many profitable businesses and give employment, directly and indirectly, to many persons. On the other hand, providing that the compounds are really efficient, as many of them are, they are worth the price to the consumer. The decision mentioned leads logically to the destruction of all these businesses, for the moment that the formula is required to be published, extemporized formulæ will take the place of the proprietary wares. It will, of course, be argued that this helps the consumer. But, as soon as the businesses are killed, sources of information as to formulæ will be lacking, and, in the long run, counting retail prices especially for compounding, liability to errors and to use of inferior ingredients, as well as the speedily forgotten knowledge of formulæ, the consumer will be worse off than at present.

COURSE IN ELECTROLOGY, RADIOLOGY AND "RADIUMLOGY." Fifty lectures will be given at the Hospital of Pity, Paris, Nov. 3-Dec. 2. At the first lecture the attendants will be divided into classes of about ten and assigned to various hospitals in Paris for practical demonstrations. The entire course is free to physicians. Applicants should address either Dr. Delherm. Hopital de la Pitie, Boulevard de l'Hopital No. 83, or Dr. Aubourg, Hopital Boucicaut, Rue de la Convention, No. 62.

FRAUDULENT RADIO-ACTIVE WATERS. The U. S. Dept of Agriculture issues a general warning against water advertised as possessing radio-active properties. In many cases, spring water does possess radio-active properties, but, after bottling, 50 per cent. is lost in four days and 90 per cent. after 12 days. After a month, practically no radiant energy will remain. Foreign waters which do not show the radio-active properties claimed are excluded from importation. The Department is considering means to protect the public from fraudulent claims for native waters. It is interesting to observe that, in the case of radio-active waters, we now have a scientific demonstration and means of quantitation, establishing the former claims for virtues of springs not possessed for the water when bottled and used at a distance from the source. It must also be admitted that radio-activity illustrates the partial truth of certain claims of homeopathy formerly regarded as entirely imaginative. Without going

to the extreme of advocating credulity toward every claim or popular notion, skeptics who argue on a priori grounds or because of the lack of scientific evidence against various theories, will occasionally be obliged to confess that they were mistaken. We speak from the standpoint of a skeptic who formerly sneered at the idea that the water itself, aside from the recreation obtained at health resorts, could have any different action at its source than when taken from a bottle, or that the natural water possessed any virtues that could not be duplicated by following its chemic formula. Having been mistaken in this regard—and in other opinions—we ask pardon if, at times, we apparently show a tendency to acknowledge the possibility of truth in what appears to be an absurdity.

ANOTHER CASE OF EYE INJURY FROM ACID IN GOLF BALL. September 2, Stafford Hawken, the 12-year-old son of the Assistant U. S. Attorney at Washington, had the sight of the right eye destroyed and that of the left endangered while investigating the contents of a golf ball. Several cases of this sort have already occurred, and, in view of the number of persons playing the game, it would be well if physicians would warn their acquaintances of this danger. Indeed, it is open to serious question whether the matter should not be dealt with legally, to prevent the possibility of such accidents. The danger of purely mechanic injuries from balls of all kinds is inevitable, but is comparatively slight and is sufficiently obvious to all.

NEW YORK COCAINE LAW—Provisions Affecting Physicians—This law regulates the sale, furnishing, disposing of, prescribing, using, giving away or possession of alkaloid cocaine, Alpha or Beta Eucaine, or their salts; and any admixture, compound, solution or product of which either of these drugs may be an ingredient.

To furnish, give away, etc., these substances, except under conditions named hereafter, constitutes a felony.

INVENTORY.

Every duly registered, practicing physician shall make a record of the amount of each of these substances possessed by him in a book kept for the purpose. He shall specifically state in this book the amount of each kind of said substances in his possession, and the particular place in which same is kept. This book shall be open to inspection by any prosecuting officer in the State and by such persons as he may designate; and must be kept for at least five years after the date of the last entry in it.

A physician may keep on hand, at one time, not more than $1\frac{1}{8}$ ounces of these items.

If by any means, or through any error, he finds a larger stock in his possession, it will be his duty at once, on such discovery, to notify the State Department of Health of the fact in writing, stating the amount of each substance possessed, and the place where same is kept. No more may be purchased until the amount on hand shall be reduced by lawful disposition thereof to less than $1\frac{1}{8}$ ounces.

PURCHASES.

A duly registered and qualified physician may purchase one and one-eighth ounces of these drugs in original, sealed packages, by his written order on a manufacturer or wholesale dealer in drugs, which order must be signed by himself.

Upon the delivery to him of such substances, the physician must record the purchase in a book kept for the purpose, stating date of purchase, quantity, name and form in which purchased, name and address of seller, name of purchaser, name of person making entry, a description of the package or container in which the substance is purchased; and a statement that such substance was sold and purchased in the original package, that the package was sealed, that the seals were undamaged and unbroken, that the prescribed labels were attached and were not defaced or damaged; and a statement showing how delivery was made, whether personally or by mail, express, freight or messenger.

Since wholesalers are not permitted to sell to physicians in New York State who are not duly registered and licensed to practice, all orders for cocaine preparations should have written upon them the license number of the physician ordering.

STOCK CLOSET.

The above record shall also show the particular place in which the substance so purchased is to be kept. This place shall not be changed without an entry being made opposite the original entry, signed by the purchaser. (Keeping in place not scheduled, a misdemeanor.) The record and statement in this book shall be signed by the purchaser.

DISPENSING.

A physician may, after a personal examination of a patient, prescribe and himself dispense any of these items to such patient, provided he executes and delivers to the patient a certificate stating the amount dispensed and the date, signed with the physician's name and address. (Failure to give certificate, a felony.)

A physician may also carry these substances for use in his profession, provided the amount so personally carried, and the amount kept in the place scheduled in his record, shall not together exceed a total of one and one-eighth ounces of such substance.

PRESCRIPTIONS.

A physician may also write prescriptions for any of these items. These prescriptions must be signed and dated by such physician.

If the total content of a prescription containing any of these substances shall exceed one grain to the fluidounce, or in the case of an ointment, two grains to the ounce, and this prescription shall be intended for use for a longer period than ten days, it is necessary for the physician to make a statement to that effect on the certificate issued by the druggist who dispenses the prescription: the patient bringing to the physician the druggist's certificate, for that purpose.

At least once in six months a physician must record, in a book kept for the purpose, the gross amount disposed of by him. If he has on hand less than the difference between the amounts purchased and the amounts disposed of, as shown by his records, it is presumed that the law has been violated. (A felony.)

WHAT A DRUGGIST DOES.

If, on the presentation of a physician's prescription, the druggist finds that the proportion of cocaine or its salts is greater than one per cent. of the entire amount of the prescription, he must at once call up the physician, to verify the quantity. If the proportion of cocaine or its salts be not more than one grain to the ounce, if a liquid, or not more than two grains to the ounce, if an ointment, the prescription may be repeated by the druggist, who may give the patient a copy: but, if the proportion is greater, the prescription cannot be repeated and the druggist may neither return the prescription nor a copy to the patient.

The druggist must fill out and give the patient a certificate.

"TEMPERINE," a temperance drink, said to contain less than one-half per cent. of alcohol, was found by the Department of Agriculture to contain 2.77 per cent. It was legally decided that this was sufficient to be intoxicating and the manufacturer was fined.

MAPLE SYRUP AND RICE, advertised as high-grade products, have been shown to be of inferior grade and fines have been imposed. The Department of Agriculture is changing the meaning of "caveat emptor." The buyer is taking care, but in a systematic, official way.

NEWSPAPER APPRECIATION OF OUR PROFESSION. Last month our profession received about five full columns in the daily press of one day. Unfortunately, a couple of columns were devoted to the sad case of a young girl, killed and dismembered, on whom a physician was said to have performed an abortion. About the same space was devoted to the recrimination of a Jewish physician who claimed that Governor Sulzer had promised him the appointment as State Health Commissioner, in return for swinging the Jewish vote of New York City. Publicity of this sort injures the prestige of the entire profession.

TYPHOID IN NIAGARA FALLS, ONT. This city has usually been relatively free from typhoid, the division of Niagara River by Grand Island deflecting the sewage of Buffalo into the eastern channel. Over fifty cases have occurred within the last month and the engineer of the Provincial Health Board called in consultation by the local authorities, has advised a system of hypochlorite treatment.

BUFFALO HOSPITAL OF THE SISTERS OF CHARITY will have a new Clinic Building to cost \$100,000. It will contain seven operating rooms, in tile and marble, an X-ray laboratory, pathologic laboratory, lecture hall, cooking school, etc. The corner stone was laid September 4 by Bishop Colton, assisted by Chancellor Walsh.

TOO MUCH EUGENICS. Pittsburgh issued 1,035 marriage licenses in August, 1912, and the number increased for several months at the rate of 10 per cent. per month. In August, 1913, after requiring a more elaborate license blank to be filled out, the number dropped to 104.

AUTOMOBILE CASUALTIES. Buffalo has lately decided, by conference between a committee of the Common Council and members of the Automobile Club, to forbid dazzling lights on automobiles within the city limits—without reference to the quibble attempted by some as to whether such lights were of the ordinary type of lamp or consisted in specially attached searchlights—to remove the excuse for such dangerous illumination by repairing pavements, and to make a reasonable compromise between the full stop in passing a street car at a crossing demanded by some, and the practice of plowing a track through a crowd of pedestrians. The ordinance contemplated provides that an automobile may proceed not faster than five miles an hour past a street car taking on or discharging passengers, if there is a six-foot clearance.

The dangers of automobile traffic must be seriously considered and dealt with according to wise, general principles, applicable, so far as possible, to all communities, and in a way fair to all persons concerned. We venture to point out some underlying factors on which any efficient measures of prophylaxis must depend. If it seems to any reader that such a discussion is outside the scope of a medical journal, we would remind him that the profession is logically interested in prophylaxis, not only of disease but of sudden death; that automobile accidents are, at present, one of the commonest causes of deaths of the profession itself, and that in all general considerations of the value of the medical profession to the public, the profession is held responsible for the aggregate mortality rate, at least in the negative sense that its credit for diminishing the mortality from disease is reduced by every accidental death occurring.

The introduction of the automobile has already resulted in a congestion both of urban and rural highways not contemplated when roads and streets were laid out. Washington, D. C., is almost the only city in this country in which the average street is wide enough for the adequate accommodation of street cars, standing vehicles and moving vehicles, to say nothing of pedestrians. To speak of Buffalo alone, it may be said that there are practically no direct trunk streets suitable for long distance travel, which are not occupied by car tracks, and, during the whole of the last summer, every natural route out of the city has been more or less impassible, either on account of worn out pavements, grade crossing or other improvements pursued in the most leisurely way, or what may be termed in a journal of this nature, congenital atresia, or other anomaly. If this statement is incorrect, we welcome criticism as a matter of personal information, if nothing else. Buffalo may claim to have the most system in the laying out of streets of any city in the world. As we count them, there are five beautiful and distinct systems. In parts of the city where two or three systems come together, persons born here often get lost. One can go down town from almost any part of the city by a fairly direct route, but there are large areas of the city which are practically shut off from communication with other areas, even adjacent ones, except by long detours or by dangerous and spring-damaging streets and railroad crossings. There is no street in Buffalo that runs straight with adequate width from one city line to another. The nearest approach to such an ideal is Genesee street, which is dangerously narrow for most of its length. There are only a few available streets paralleling trunk routes of street car traffic, for any considerable distance along natural routes of travel.

These criticisms are more or less applicable to all the other cities of our territory and in only one, Rochester, is there any natural obstacle (the Genesee River) affording an adequate excuse. The first radical step in preventing the disgracefully high accident and mortality rate prevalent from vehicular congestion, is to provide streets of sufficient width, properly paved, and that lead from somewhere to somewhere.

The next step is to distinguish clearly between speed and dangerous driving. Owing to the guidance of tracks, a street car should be allowed to go at any rate of speed compatible with safety in crossing, with due regard to the ability of the average eye to judge distance and speed. Owing to its constructive controlability, an automobile at twenty miles an hour is no more dangerous than a bicycle at ten or a horse drawn vehicle at eight.

The third step is to realize that statistics as to what struck such and such a number of persons, are not of much value in determining the ultimate measures required for safety. The man killed by a trolley may have had to jump for his life to avoid an automobile and the automobile may have crowded him because a motor cycle was passing to the right or because the department of streets had neglected to fill a dangerous hole in the pavement, or had filled it with a mass of sharp flints. In a long experience, including every ordinary means of conveyance, except the motor cycle, we have no hesitation in declaring that the principal danger in traffic is not the rapidly moving vehicle of any kind but the slow one, driven without regard to the rights of others. If we were the Chief of Police we would direct the patrolmen to specialize on arrests, not of automobilists nor even of those Pariahs of the highway, the motor cyclists, but of this list: vehicles of unusual width, vehicles with pipes and lumber projecting beyond the wagon box, slow moving vehicles on car tracks and that do not keep well to the curb, or that do not heed signals of passing vehicles; vehicles with drivers asleep on the seat.

A fifth cardinal principle in achieving safety from traffic accidents is a proper distribution of responsibility. The present theory is that the man driving a vehicle, and especially an automobile—the bicycle formerly held this distinction—is to blame unless he can clearly show to the contrary. Now the ultimate object of all regulations is not to place blame nor to punish offenders but to prevent injuries. In Europe, the person run down by a vehicle is subject to arrest for obstructing traffic. This idea does not appeal favorably to the average American, but, it results in a number of accidents far less than in America, in spite of a lay-out of streets 500 years instead of 100 years behind

modern requirements. Somewhere between these extreme bases for traffic regulation, must be found one which shall recognize the plain physiologic facts that a man has only two eyes and that he cannot look four ways at once, and the equally plain combination of mechanic and physiologic facts that there is, as yet, no automobile made so that the various levers and steering gear and warning horn or bell can be successfully operated at once with two hands and two feet. Every few days a child or a man playing ball, or a "jay-walker" is killed in the streets. The man who ran him down may or may not be mobbed and he may or may not be found guilty criminally or be liable or not for civil damages. The main thing to consider is that some one has been unnecessarily killed. Even at the expense of fencing off the streets, providing foot bridges at street crossings, establishing more public play grounds, or of punishing parents responsible for small children or directly, those old enough to be responsible for their own safety, these accidents must be prevented and they will continue until the fact is recognized that the streets between the curbs—or kerbs, if you prefer—must be reserved, except at crossings, for vehicles of one kind or another.

The problems of street traffic have assumed an unexpectedly high degree of importance within the last few years, corresponding largely to the rapid development of the use of the horseless vehicle. In this State, there is more than one automobile to every hundred of population, and, in relation to carrying capacity, this means that about one person in twenty-five habitually does a great part of his transit through the streets in this way. This ratio is, naturally, exceeded in cities. The automobile is still highly unsatisfactory from the standpoints of economy and trouble of upkeep, in spite of statements and quasi guarantees to the contrary. There is a gradual approach toward standards of economy and durability claimed in advertisements and demanded for most other mechanic devices in common use, such as typewriters, clocks and watches, pianos, sewing machines, telephones, etc. It is perfectly possible that competition may result in a more rapid attainment of these standards and in a sudden reduction in initial cost, comparable to that observed in the case of the bicycle a few years ago, the latter due to the elimination of the "velvet" in the present gross profit of nearly 100 per cent. The achievement of either of these highly desirable results will double the magnitude of the problem of achieving safety on our streets and roads. It is high time that the problem should be attacked vigorously and sensibly.

FAIRCHILD BROS. & FOSTER, New York, have been awarded a gold medal for Physiological Pharmaceutical Preparations at

the exhibit in connection with the International Conference of Medicine held in London in August.

THE NEW MATERNITY WING OF THE AUBURN CITY HOSPITAL is open. The older wooden structure forms part of the completed building, the new part being of brick. As now completed there is a reception room for friends of the expectant mother, ten single rooms, a four-bed ward, a two-bed ward, a labor room and a delivery room, two nurseries, one having an isolation room adjoining (for cases of ophthalmia, etc.) There will be separate bassinets for each baby. The pantry and serving room are on the first floor with a dumb waiter running to the second floor. Communication between floors is by a wide stairway up which a patient may be carried on a bed if necessary, also by elevator. The floors are all of hardwood, doors inside of mahoganized birch, outside doors of oak. There is a bath on each floor and lighting is by gas and electricity. A graduate nurse in charge. Sloane maternity methods as far as practicable. Prices \$18, \$20 and \$25 per week.

THE UNIVERSITY OF BUFFALO opened its doors on September 22, holding, for the first time, in Alumni Hall of the medical building, a general meeting of the students of all departments. We particularly commend this action, as it promotes a solidarity of university sentiment, affords opportunity for broadening acquaintance and tends to do away with the mutual contempt which was formerly so characteristic of the departments of universities elsewhere. Captain Harry R. Trick, M. D., delivered the address to the Medical Department in the evening. The freshman medical class numbers about seventy matriculants. Peculiarly gratifying was the registration for the new course in arts and sciences—thirty-five. It is understood that not all of these registering in this course have done so to fulfill the higher requirements for medical matriculation in force after this year, but that a considerable number have availed themselves of the course on its merits, as a means of securing a higher education for its own sake. We venture the prediction that the students will force the university authorities not only to continue but to extend this course until a fully equipped collegiate department is secured, and we are confident, not only that the authorities are more than willing to have such a suasion applied, but that they will ultimately succeed in securing the necessary means of establishing a college in Buffalo. There is an abundance of material wealth in the city, sufficiently tainted to be appropriate for an educational foundation.

PERSONALS.

Announcements of removal, travel, and other matters of interest are requested. Please report errors in the listing of any physician in the State and other directories that we may co-operate with the State Society in securing a correct list.

Dr. Albert Bowen has returned to Rochester to practice, being at 221 Oxford street.

Dr. W. Eugene Powell has opened an office at 251 Arnett Boulevard, Rochester, N. Y.

Dr. W. B. Jones of Rochester has returned from an extended trip abroad.

Dr. Wm. G. Taylor of Buffalo has returned from Europe.

Dr. Charles W. Hennington of Rochester spent August at Point Abino, Canada.

Dr. Walter L. Mattick, formerly House Physician at Bellevue Hospital, announces the opening of an office at 290 Highland avenue, Buffalo, with equipment for doing general laboratory work for the profession.

Dr. Lucy A. Kenner has been appointed corporation physician to the Larkin co. of Buffalo, this firm being one of a very few in the entire country employing a physician to devote the entire time to the corporation's employees.

Dr. Albert J. Colton of Buffalo has moved to 27 Jewett avenue.

Dr. F. G. Moehlau of Buffalo has moved to 237 E. Utica St.

Drs. Roswell Park and Roland Meisenbach of Buffalo gave a dinner at the Country Club August 27, in honor of the medical delegates to the International Congress of School Hygiene. About thirty-five were present.

Dr. Harry Mead of Buffalo returned from Europe August 26.

Dr. Regina Flood Keyes of Buffalo has moved her office and residence to 432 Delaware avenue.

Dr. N. Kavinsky and his wife, Dr. Nadina R. Kavinsky, returned September 1st from a five months' trip to Europe, devoted especially to surgical study in Berlin.

Dr. Geo. C. Sincerbeaux of Auburn spent a vacation of two weeks among the Thousand Islands.

Dr. S. E. Austin of Auburn enjoyed a two weeks' fishing trip in the Adirondacks.

Dr. John H. Grant, formerly of Buffalo, has moved from 202 W. 79th street to 936 West End avenue, New York City.

Dr. S. A. Dunham of Buffalo spent a couple of weeks on his farm near Warren, Pa., about the first of September.

The editor acknowledges the hospitality of Dr. A. E. Bartoo of Wilson, formerly of Buffalo.

Dr. John Ragone of Buffalo spent three weeks of September in northern Canada.

Dr. Marshall Clinton of Buffalo returned early in September from a trip to Connecticut.

Dr. Charles E. Flagg of Buffalo traveled through the St. Lawrence, Muskoka and Georgia Bay country in August.

Dr. L. H. Willis of Rochester has letters showing him to be the original of "Laurie" in *Little Women*.

Dr. A. C. Callahan of Buffalo was chairman of the parade committee of the Moose, during their Harvest Carnival in September.

Dr. C. F. Chaffe of Rochester has moved to 326 Park avenue.

Dr. R. M. Root of Buffalo has returned from Europe.

Dr. F. E. Fronczak, Health Commissioner of Buffalo, attended the meeting of Polish Physicians in Detroit, September 18-20.

Dr. Isaac Sernoffsky of Buffalo has gone to Europe.

OBITUARIES.

Readers are requested to report promptly the death of all physicians in Western New York, or former residents of this region, or graduates of any medical school in Western New York and to notify the families of the deceased of our desire to publish adequate obituary notices.

Dr. Mortimer M. Taplin, McGill, 1892, died of pneumonia September 9 at the Rochester General Hospital, having continued to attend to his practice till two days before. He was born in Addison, Ontario, June 25, 1868. After graduating in medicine, he practiced with his uncle, Dr. O. O. Stowell of Copenhagen, N. Y., for four years, and then, in 1896, opened an office in Rochester. He was a member of the County and State Societies and of the Rochester Academy of Medicine and Pathologic Society. Having met Dr. Taplin in consultation and informally on several occasions, we can add a personal tribute to his sound judgment, personal charm and sterling qualities.

Dr. Sidney A. Pierce, University of Pennsylvania, 1868, died in Rochester, August 24, aged 66.

Dr. Allen E. Bradley (not listed in State Directory) died in Norwich, N. Y., August 26, aged 52.

Dr. Emily H. Wells, Woman's Medical College of the New York Infirmary for Women and Children, 1873, died at her home in Binghamton, August 20, aged 72. She was at one time President of the Broome Co. Medical Association.

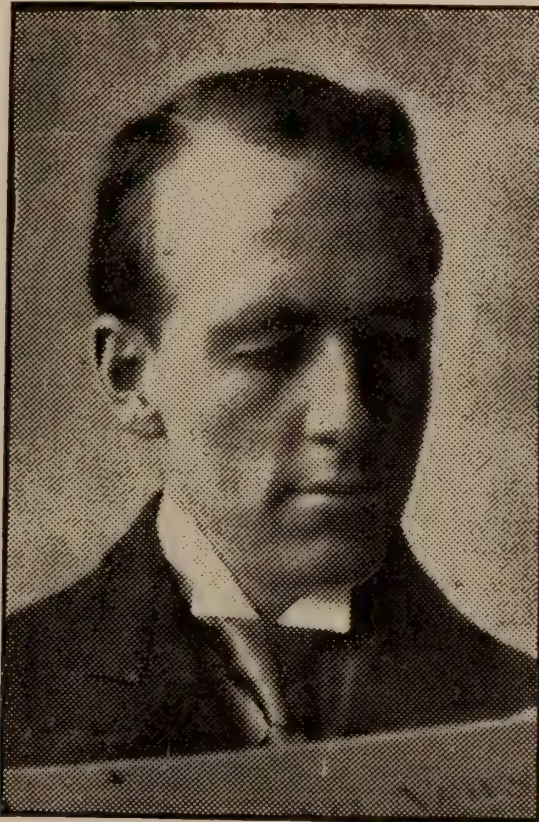
Dr. Ira L. Jones, University of Buffalo, 1864, died at his home in Minetto, Oswego Co., N. Y., July 30, aged 81.

Dr. Albert Steuben Hotaling, P. & S. of Baltimore, 1894, died in Syracuse August 8, aged 40.

Dr. Charles P. Clark, Toronto, 1889, for many years a practitioner of Buffalo, died suddenly while in his automobile, August 28, of heart disease. He was about 50 years of age. He was at one time a member of the faculty of Niagara University, and belonged to the University Club. He apparently had a momentary warning, as he had shut off the engine, but the machine ran a short distance with no guidance from the hand on the wheel.

Dr. Bernard F. Dennis, Buffalo, 1899, died in Oil City July 31, aged 36. He was born in Buffalo January 8, 1877, and resided in that city till after his graduation in medicine. After a year's interne service at St. Mary's Hospital, Rochester, he located in Niagara Falls and practiced there for eight years. He then went to Europe, studying in Vienna and Berlin, meeting in the latter place the musician, Miss Bertha Snyder, who later became his wife. On his return to this country he opened an office in Buffalo, maintaining also his office in Niagara Falls. The strain of professional work gradually undermined his health to a more serious degree than anyone but himself realized. About ten days before his death he left for a rest. The funeral was held at the home of his mother in Charlotte, N. Y.

Dr. Alexander M. Troup, Buffalo, 1900, of Holland, N. Y., was killed by the skidding and overturning of his automobile while on his way to a patient August 24. Death was instan-

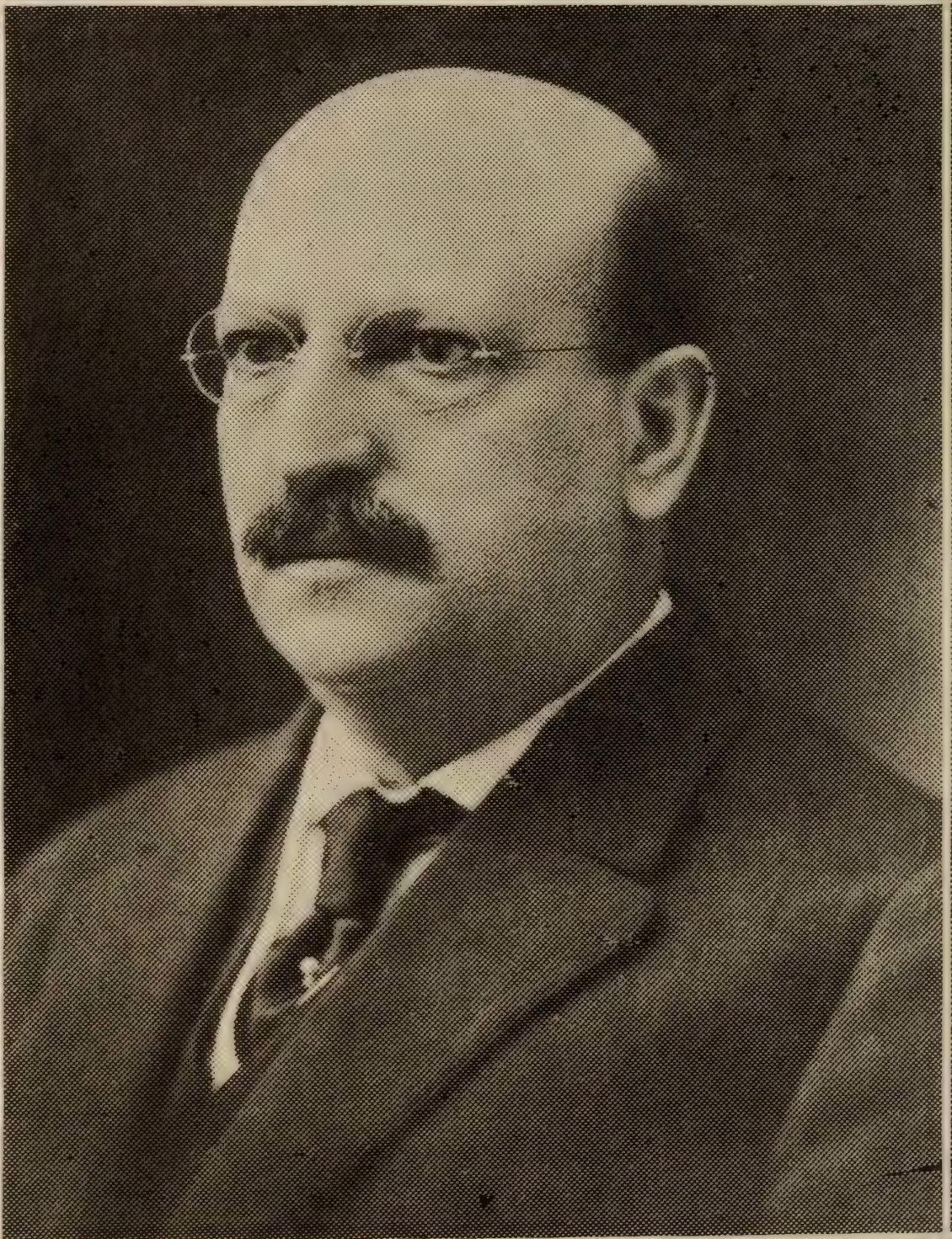


Courtesy of The Buffalo Evening News.

taneous. He was born in Buffalo February 10, 1878, and was educated at the Buffalo Grammar and High Schools. He moved to Holland in 1908.

Dr. Nathan Jacobson, Syracuse University, 1877, died at the Syracuse Hospital for Women and Children, September 16, while visiting his patients. Death was due to angina pectoris

and occurred about two hours after his first seizure. There had apparently been no premonitory symptoms, as Dr. Jacobson had never mentioned them and he had remarked, just before the seizure, that he had never felt better in his life.



Dr. Nathan Jacobson.

Courtesy of the Post-Standard of Syracuse.

Dr. Jacobson was born in Syracuse, June 26, 1857, and received his education in the public schools of that city, graduating from the High School in 1874. He began the study of medicine

under the preceptorship of Dr. Roger W. Pease, entering the classes of Syracuse University, and, as stated, receiving the degree of M. D. in 1877. He then went to Vienna and pursued a post-graduate course at the General Hospital. In 1878 he began practice in Syracuse, devoting himself largely to surgery and to laryngology in the beginning, but later relinquishing the latter branch. After having filled several successive positions in the University, he was elected to the chair of clinical surgery and laryngology in 1899, and until his death he was the senior surgical professor.

Of the many positions of honor that Dr. Jacobson has filled, of his numerous and valuable contributions to medical literature, of his professional ability and conscientious discharge of all duties, public and private, it is unnecessary to speak at length. To the younger generation, we wish to allude to him as a striking example of the falsity of the old contention that a medical prophet cannot achieve the highest honor in his own birth place. From a long, though necessarily occasional acquaintance, we can speak personally and with all sincerity of his greatness and goodness of heart, his integrity and industry.

SOCIETY MEETINGS.

Brief reports and announcements of meetings of societies of Western New York and of those of general scope are requested from Secretaries. Copy should be on hand by the fifteenth of each month. Full transactions will be published at cost of composition.

The third bi-ennial meeting of the POLISH PHYSICIANS ASSOCIATION OF AMERICA was held on September 19th at Hotel Cadillac, Detroit, Mich. Dr. Francis E. Fronczak, Health Commissioner, Buffalo, N. Y., President, presiding.

Over fifty members from all over the country were present. The association numbers about 250.

At the business meeting, at which various reports were received, action was taken whereby the Polish press of this country will be asked to refuse to accept advertising matter from quacks and physicians who, under the guise of free medical advisors, etc., have been demoralizing the Polish people and at the same time reaping a financial harvest. The Polish press of this country has been flooded with this kind of advertising, and the Polish press can aid in suppressing this great fraud.

A complete directory of the Polish physicians of the United States is soon to be compiled. Matters referring to the protection of the profession, also the matter of helping the struggling medical student, the establishment of headquarters for the Polish

Physicians' Associations of America, where all information can be gathered and distributed to the profession and to the student were acted on.

Papers were read and discussed by Dr. Pietrzykowski of Chicago; Dr. R. Sadowski of Detroit; Dr. Zurawski of Chicago, Dr. Wagner of Milwaukee; Dr. Krajewski of Nanticoke, Dr. Francis E. Fronczak of Buffalo, Dr. Ostrowski of Hammond, Ind.; Dr. Peters of Cleveland, Dr. Ratajski of Shenandoah, and many others.

The following officers were elected: Dr. Francis E. Fronczak, President, Buffalo; Dr. Kas. Zurawski, Vice-President, Chicago; Dr. S. N. Borowiak, Secretary, Buffalo; Dr. Eug. Koneczny, Treasurer, Detroit.

THE MEDICAL SOCIETY OF THE COUNTY OF CHEMUNG held its regular fall meeting at Elmira, September 16. Dr. C. S. Carey read a paper on "The Correction of Eye Strain in Functional Nervous Diseases," and Dr. H. W. Fudge gave a case report.

THE BUFFALO MEDICAL AND SURGICAL LEAGUE met at the Hotel Statler, September 11, a symposium being held.

THE SEVENTH AND EIGHTH DISTRICT BRANCHES of the State Society held a joint meeting at Sonyea, September 24 and 25. A number of guests were entertained at the State Institution over night, in order that the business meeting of the Eighth Branch might be held on the evening of September 24. The program was as follows:

President's Address, "The Eighth District Branch," Arthur G. Bennett, M. D., Buffalo; President's Address, "The Seventh District Branch," William T. Shanahan, M. D., Sonyea; "The Burden of Mental Defect," Herman G. Matzinger, M. D., Buffalo; "Field Work in the Study of Epilepsy," David F. Weeks, M. D., Supt. New Jersey State Village for Epileptics; Discussion opened by Dr. Gertrude E. Hall, Bureau of Analysis, New York State Board of Charities; "Recent Advances in Neurology and Psychiatry," Edward L. Hanes, M. D., Rochester; Discussion opened by Eveline P. Ballintine, M. D., Rochester; "Landry's Paralysis and Its Relation to Acute Poliomyelitis." Edward A. Sharp, M. D., Buffalo; Discussion opened by Nelson G. Russell, M. D., Buffalo; Recess for luncheon; "The History of Surgical Intervention in Epilepsy," Roswell Park, M. D., Buffalo; "The Association of Skin Lesions with Diabetes," John R. Williams, M. D., Rochester; "Suggestions for a New Classification of the Syphilides" (illustrated by stereopticon), Grover W. Wende, M. D., Buffalo; "Sugar Tolerance in Epilepsy" (illustrated by

stereopticon), James F. Munson, M. D., Sonyea; Discussion opened by Arthur L. Shaw, M. D., Sonyea; "A Further Report Upon Some Hematological Cases," John M. Swan, M. D., Rochester; "Intravenous Use of Paraldehyde," G. Kirby Collier, M. D., Sonyea.

THE CAYUGA COUNTY MEDICAL SOCIETY held its quarterly meeting on September 11. Dr. Wm. F. Campbell, President of the W. Society of the State of New York, was present and addressed the meeting.

BOOK REVIEWS.

Books mentioned may be inspected at and ordered through this office. So far as possible, books received in any month will be reviewed in the issue of the second month following.

MANUAL OF OBSTETRICS. John Osborn Polak, NM. S., M. D., Brooklyn, D. Appleton & Co., New York and London; 468 pages, 3 plates in color; 119 illustrations in text; limp leather; \$3.00.

This treatise follows the golden mean between a condensed presentation of essentials and a cyclopædic monograph. Anatomy, embryology, physiology of pregnancy, abnormalities and clinical considerations of the pregnant state, physiology, mechanism and management of normal labor, the puerperium, the anatomy, physiology and management of the new born child, with a brief discussion of infant feeding, dentition, disease encountered early in life, pathology of labor and the puerperium, obstetric surgery, are the main topics. We are pleased at the retention of the time honored classification of the powers, passages and passenger, so aptly alliterative. Without in any sense implying a lack of authorship, we cannot refrain from complimenting the publishers upon the unusually elaborate mechanic preparation of this book.

ANATOMY, DESCRIPTIVE AND APPLIED, by Henry Gray, F. R. S.. New American Edition, revised and re-edited, by Edward Anthony Spitzka, M. D., Philadelphia. (Basle Anatomic Nomenclature in Latin, added to the ordinary). 1502 pages; 1225 engravings; Lea & Febiger, Philadelphia and New York; \$6.00 cloth; \$7.00 leather.

Gray's Anatomy, first appearing in England, half a century ago, united clear and accurate descriptions with illustrations

superior to any previously published. An apparently minor point, the engraving of the names of structures directly upon their pictures, was, in itself, of the greatest convenience to students. While, even in a subject like anatomy, the science of medicine is never at a standstill, there is, obviously less opportunity for discovery and less need of modifying a treatise on this than in any other medical subject. Hence the retention of Gray's name is by no means an empty honor. The work is still essentially as he left it, although ample opportunity has been afforded for clarifying certain descriptions, for condensing others, tabulating structures according to the most ingenious methods devised by a multitude of teachers, for incorporating accrued experience in regard to anomalous disposition of organs, for revising the nomenclature, and, most important of all, for improving the illustrations in accordance with half a century of development of the engraver's art. There is an old story of a medical student who objected to studying anatomy from an old edition of his preceptor's library and who was rebuked by the latter with the sarcastic remark that very few new bones had been discovered since the book was printed. Such a masterpiece of medical publication as is here presented, justifies the student and reverses the original moral of the story. It is interesting to note that the present edition is the eighteenth in England and the nineteenth in the United States.

THE CAREER OF DR. WEAVER, A NOVEL. (By Mrs. Henry W. Backus. Cloth decorative; illustrated; 12 mo. pp. 373; net, \$1.25; postpaid, \$1.40, Boston; L. C. Page & Co.)

In a sense this is a "novel with a purpose." It contrasts the medical careers of two brothers, one a shrewd, ethical advertiser and fee splitter, successful socially, professionally and financially; the other, typic of the ordinary, sincere, honorable but not particularly prominent physician. Whether the purpose will be fulfilled to any degree by this story is an open question, but the very fact that a lay author has so thoroughly understood one of the most difficult problems that confront the profession and that this sort of success is an open book to the laity generally, ought to have some influence. Unfortunately, there are always some who will work the simplest and most often exposed trick and always a fresh crop of dupes. A quarter of a century ago one could scarcely go down town in Buffalo without encountering a young man, with whiskers, silk hat and funereal coat, waiting with his obstetric bag at the corner of Niagara and Main streets for a horse car that never came. During the Perry celebration, the same type, except that the clothes and whiskers were slightly

modernized, the obstetric bag remaining the same, paraded through the crowd that was watching a procession which he did not take the trouble to look at. When we contemplate Dr. Weaver in his manifold phases, we are tempted to repeat the Pharisee's prayer of thankfulness that he was not as other men.

TOPOGRAPHIC MAPS OF THE U. S. GEOLOGIC SURVEY, issued by co-operation with the N. Y. State Engineer and Surveyor. During the last decade or more, the national government has joined with certain states in making accurate maps, showing water courses, roads, altitude, political divisions, roads and human habitation, etc. These maps are issued in quadrangles about ten miles wide and fifteen high (fifteen minutes of longitude and latitude, respectively). While the principal motive in preparing these maps has been to secure an accurate record of the physical geography of the country, they are of great interest to the medical profession as indicating drainage, potential water supplies, suitable altitudes and accessibility by highway and railroad, for sanitariums and the like. They will also probably be referred to in the future for historic data as to highways and settlements, perhaps to determine legal questions depending upon these matters. Military strategists will also probably use them considerably though, let us hope, only in retrospect, as the quadrangle including Gettysburg. Incidentally these maps are most convenient for those who tour the country in private conveyances, though requiring some further marking to indicate the present condition of roads. The work reflects great credit on the past and present force of the bureau.

UNIVERSITY OF BUFFALO. ANNOUNCEMENT OF COURSES IN ARTS AND SCIENCES. Session of 1913-14. These courses are arranged in two semesters, extending from September 15 to June 5, the work being that of the freshman class in a standard college. Various items of interest with regard to recreation, students' organization, welfare, self-support, etc., are included. The officers and faculty of what we trust will develop into a collegiate department of the university are as follows:

The Council of the University has appointed as a committee to have supervision of these courses: Herbert U. Williams, M. D., Dean of the Department of Medicine; Willis G. Gregory, M. D., Dean of the Department of Pharmacy; Carlos C. Alden, J. D., Dean of the Department of Law; John Oppie McCall, D. D. S., of the Dental Department, Secretary-Treasurer.

Faculty—Albert P. Sy, M. S., Ph. D., Chemistry; Walter McM. Ralph, B. Chem., Chemistry; M. Smith Thomas, Physics; Lester B. Gary, A. B., Biology; Wilfred H. Sherck, A. M., Mathematics;

Peter Gow, Jr., A. B., Latin; Philip Becker Goetz, A. M., English; Julian Park, A. B., French; Wilhelm Oncken, German.

MARRIAGE AND GENETICS—*Laws of Human Breeding and Applied Eugenics*. By Charles A. L. Reed, M. D., F. C. S.; pp 182 ($5\frac{1}{4} \times 7\frac{1}{4}$); price, including postage, \$1.00; subscription only. The Galton Press, Publishers, Cincinnati, Ohio.

The author speaks as a surgeon, impressed with duty to transmit a message that may prevent the disasters which so often culminate in the necessity for serious operations and which such operations can only partially mitigate, even in favorable cases. He quotes Galton's law of inheritance, which antedates and clearly anticipates that of Mendel, lacking, indeed, only its mathematic form of expression: (1) The germ cell is the summation of its racial antecedents derived in certain more or less definite proportions from each member of preceding ancestral generations. (2) On the average, as many heritable traits or characteristic are derived from one parent as from the other. We are naturally pleased to find that the author warmly supports the view which we have often expressed, that the study of genealogy is neither a waste of time, as most of those hold who have never given it attention, nor serviceable, as it must be confessed most professional and amateur genealogists have implied, merely as a matter of self-aggrandisement or as a door-way admitting to organizations more or less worthy of encouragement. "The germ cell is so freighted with ancestral potentialities as to make the previous history of its germplasm through preceding generations a matter of deep concern to the conscientious prospective parent. This fact invests the subject of family trees and pedigrees with a new, definite and practical importance, particularly whenever the records embrace facts of character-determining significance to the progeny."

In the chapter on Genetic Factors, an alphabetic list is given of various drug habits, diseases, prominent symptoms, sexual and psychic abnormalities of significance in the medical examination preliminary to marriage. While not highly technical, this systematizes better than anything else of the sort that we have seen, the work of the physician as an advisor in regard to marriage. Inevitably in the present state of our knowledge regarding genetics, the book contains a good deal of trite generalization, including the Jukes-Edwards comparison. We have often felt like entering some other families in competition with the Edwards. It seems rather at variance with Galton's second law that the distinction of the Edwards descendants by the first wife is in such marked contrast with the mediocrity of the descendants

by the second wife. Perhaps some of these descendants will speak for themselves later. At any rate, mediocrity is not a serious offense against society. However, we take personal pride in acknowledging the glowing tribute to our several times great aunt and wish that her brother might have been similarly gifted.

THE PRACTICAL MEDICINE SERIES, Vol. 5. Pediatrics, edited by Isaac A. Abt; Orthopedic Surgery, edited by John Ridlon and Charles A. Parker. The Year Book Publishers, Chicago, 1913; 235 pages; illustrated; \$1.35. (Price of series of ten volumes, \$10.00.)

This is a comprehensive review of the literature on these two closely related branches of medicine, conforming to the excellent plan of the series. We are pleased to note references to Bartow of Buffalo and John R. Williams of Rochester.

A COMPEND ON BACTERIOLOGY, INCLUDING ANIMAL PARASITES. Robert L. Pittsfield, Philadelphia. P. Blakiston's Son & Co., Philadelphia; 280 pages, four plates and 85 other illustrations, \$1.00.

This is one of the familiar brown-cloth, Quiz Compend, which have done so much to fix medical teaching in the minds of students and which have been so often criticised for conforming to the practical requirements set by examiners. The author does not at all follow the plan of questions and answers, but presents briefly and succinctly and in analytic order, the prominent facts of bacteriology and parasitology. Whatever criticism is directed toward this method of teaching should, in all fairness, be reflected upon the system of examinations which have necessitated the method. And this system is defensible as representing the practically unanimous solution of how best to rate fitness for practice. Neither the system nor the Quiz method of teaching is ideal, but both represent the best method applicable to the average person, in medicine or any other science or art, that has thus far been evolved. A carefully prepared work like this has a field of usefulness that should not be overlooked. There are many physicians—80,000 or 100,000 in the United States—busily engaged in practice, with neither time, inclination nor technical skill adequate to pose as experts in bacteriology and utterly unable to follow the highly technical literature on this subject. The reviewer, for example, has a beautiful diploma, attested by the best authority, to the effect that he is a competent bacteriologist and pathologist. This diploma, measurably true when issued,

with due regard to the rather rudimentary state of these sciences at that time, long ago became so untrue, that it was relegated to the attic. Yet all these physicians could better support true bacteriologists and could derive many practical lessons applicable to patients, if they possessed a modern knowledge of the general principles of bacteriology, of its technic and limitations. This work epitomizes the bacteriology and parasitology of today, and while admittedly falling far short of the requirements of the specialist in these branches, it is, for that reason, all the better adapted to the needs of the practitioner who wishes, not so much a handbook that will make him a bacteriologist—if such a book exists—as a compend which will give him an understanding of what the bacteriologist can do for him and how he can assist the laboratory expert in securing material for examination.

MALARIA, Graham E. Henson, Jacksonville, Fla., with introduction by Charles C. Bass of New Orleans. C. V. Mosby Co., St. Louis; 190 pages; 27 illustrations; \$2.50.

As is well known, the Mosby Co., publishers, by preference, monographs combining practical with thorough scientific study, so as to place in the reader's hands a work that is, so to say, the last if not the longest word on the subject essayed. No term better exemplifies the progress of medicine in the last generation than malaria. Once used as an inexact, comprehensive term for almost any undiagnosed condition, even including neurasthenia, it now has a most definite significance, supported by incontrovertible evidence of the most thorough nature and with a practical interpretation of scientific facts to apply to diagnosis and treatment, even to prophylaxis, which is, all things considered, excelled in the case of no disease and equaled in the case of only a very few others. For example, "Division, Protozoa; Class, Sporozoa; Order, Hæmosporidia; Genus, Plasmodium. Species: 1, *Plasmodium malariae*, quartan; 2, *Plasmodium vivax*, tertian; 3, *Plasmodium falciparum*, æstivo-autumnal, tertian type; 4, Sub species, *P. falciparum* quotidianum, æstivo-autumnal, quotidian type. While it is possible that this zoologic classification may be amended in some particulars, it is a definite statement of relationship of a group of closely allied diseases, susceptible of microscopic demonstration and conforming to clinical observation.

The author discusses in detail not only the development of the various species and the methods of detection, but the epidemiology of the malarial fevers, their wide terrestrial distribution, the relative merits of quinine and other methods of medication—without upsetting the general belief in the almost exclusive indication for quinine in some form—the habits of the anopheles and the direct

and indirect (drainage) methods of prophylaxis, as well as many interesting historic details and a detailed consideration of clinical manifestations. The author speaks from a wide experience and thorough study of the literature which warrant the expression of positive opinions. For example, he considers pernicious malaria as an aggravated form of any type, though usually of the æstivo-autumnal. He presents interesting and definite records of recurrence. We fail to note any reference to double forms, in particular to the theory that quotidian is a double tertian infection. Therapy is practically limited to quinine, but accurate tables are presented of the relative efficiency of various salts. Malaria is, fortunately, at present almost extinct in Buffalo, and, we believe, in most of the larger centers of population in the special field of this JOURNAL, but imported cases are liable to be encountered at any time, the anopheles has been found in various places and in smaller communities, physicians still have an active interest in malaria, which was formerly prevalent throughout this territory.

ABSTRACTS.

Readers are invited to assist in this department. With rare exceptions, we avoid abstracting from journals of organizations to which most of our readers belong. Whenever available, we state the full name and address of authors and the name and date of the journal of original publication.

THE FOURTH VENEREAL DISEASE. Some four years ago Corbus and Harris reported observations which tended to confirm the claims of Scherber and Mueller that a fourth distinct venereal disease existed. According to Corbus, the condition is a specific balanitis, and is identical with the *balanoposthite érosive circinée* of Bataille and Berdal, the latter representing a more aggravated stage of the disorder, but having the same bacteriologic genesis.

The infection is due to a symbiosis of a spirochete and a vibrio. Corbus sees a distinct etiologic influence in the gratification of the sexual impulse through unnatural means. Practically all of his patients confessed to unnatural practices. It is thought that certain organisms transferred from the buccal cavity to a more favorable habitat beneath a long, tight foreskin, may take on a luxuriant growth with a marked increase in pathogenic power. Thus the spirochete found in Vincent's angina in repeated examinations was determined to be identical with the spirochete of erosive and gangrenous balanitis, a marked feature being its motility.

A clinical characteristic of the development of the erosion is the production of a thin, offensive purulent secretion exuding from beneath the prepuce. Of course, to differentiate the condition from gonorrhea it is but necessary to determine the origin of the pus. As a rule the infection rapidly subsides, if in the erosive stage, by cleansing the surfaces and thereafter maintaining a state of cleanliness.

CERTAIN DANGERS OF ADENOID OPERATIONS. *Bulletin of the Johns Hopkins Hospital*, April, 1913. E. W. Grove, Milwaukee, Wis. The writer reviews the literature and his own experience for the complications and sequelæ of adenoid operations, such as meningitis sinusitis, mastoiditis and hæmorrhage, with the following recommendations: Delay operation when local or general contagion threatens. Take the child to a hospital when practical. Try to have a clean field of operation by preparatory treatment. Get the whole growth. The atlas forms a shelf in the posterior pharynx when the head is over-extended, behind which parts of the more luxuriant growths escape the curette, unless the head be slightly flexed. Have cases return for observation. The operation because of our great familiarity with it has bred all too much contempt.

INTERSYSTOLE IN MAN, G. Etienne, *Arch des Mal. du Coeur, des Vaisseaux, et du Sang*, 1913, VI, 161. Étienne publishes polygraphic tracings from six persons; three with hypertrophy of the heart and three perfectly normal persons, which show the wave described by Pachon in the dog, by Chauveau in the horse, and by Pezzi and Sabri in man as intersystole. Étienne considers the intersystole as an active phenomenon, and not as a simple elastic reaction of the ventricle secondary to over-distension of the auricle. In man the intersystolic wave (i) appears at the end of the auricular contraction and just before the ventricular contraction; after the auricular muscle has completely returned to the period of rest and before the ventricular muscle begins to contract. It is, graphically, presystolic (that is to say, it occurs in the presphygmic period); physiologically it is a systolic phenomenon, due to the contraction of the papillary muscles. The closure of the auriculoventricular valves, according to Étienne, is composed of three parts: (1) obliteration by concentric pressure upon the walls of the valve leaflets by the blood filling the ventricle at the end of the auricular contraction. (2) Accentuation of this valvular closure and fixation of the closed valves by traction resulting from the contraction of the papillary muscles. (3) Ventricular contraction, completing the

occlusion at the beginning of systole by energetic and passive tension of the papillary muscles.

A CASE OF DIASTOLIC MURMUR AT THE BASE OF THE HEART OF ANEMIC ORIGIN, Bouchut and Mazel, *Arch. des Mal. du Coeur, des Vaisseaux, et du Sang*, 1913, VI, 191. The authors report the case of a man aged 62 years, who was suffering from chronic nephritis, hypertrophy of the heart, arterial hypertension (280 mm.) albuminuric retinitis and albuminuria, who had repeated large hemorrhages from the intestines, followed by the development of a systolic and a diastolic murmur at the base of the heart and galop rhythm.

LYMPHOID LEUKEMIA IN BOVINES, Ch. Aubértin and Th. Morel, (*Arch. de Mal. du Coeur, des Vaisseaux, et du Sang*, 1913, VI, 201). According to the experience of the sanitary veterinarian of the Villette, only four or five cases of lymphadenia in calves and two or three in adult bovines were seen out of 450,000 animals slaughtered in 1911. The authors report two cases of characteristic lymphatic leukemia as proved by hematological and histological examination. They believe the cases of lymphadenia referred to by the veterinarians are of the same nature, or at least that lymphadenia may become converted into true lymphatic leukemia. One of the cases of lymphoid leukemia occurred in a five-year-old cow, the other in a two-months-old calf.

CLINICAL STUDIES ON THE ORIGIN OF LEUKOCYTOLYSINS AND ANTILEUKOCYTOLYSINS, I. I. Manoukhine, (*Arch. des Mal du Coeur, des Vaisseaux, et due Sang*, 1913, VI, 81.) The author has shown in previous papers that the blood contains leukocytolysins and antileukocytolysins, and that organism employs these ferments to increase or to diminish the number of leukocytes according to its necessities in the struggle against infectious agents. The leukocytolytic function of the spleen is demonstrable in the treatment of leukemia by X-rays. In a case of myeloid leukemia under the care of the author the patient's serum was capable of destroying from 16 to 44 per cent. of the leukocytes in the shed blood. The author says that the X-rays in weak therapeutic doses stimulate the activity of the tissue cells. In larger doses the X-rays produce more or less profound changes in the cells. But whether radiation stimulates the activity of an organ or provokes the destruction of its cellular elements, it is evident that any increase of substances after the radiation is due only to the activity of the cells of the radiated organ. In a case of

myeloid leukemia the serum of the patient was more pronouncedly leukocytolytic after radiation than before radiation. In the normal individual the leukocytolytic power of the blood was increased after exposing the spleen to the action of the X-rays. When, on the other hand, the thyroid body of a case of Basedow's disease was treated with X-rays the leukocytolytic power of the patient's serum was not increased. The author is of the opinion that the spleen is the organ in which leukocytolysins are produced, and that antileukocytolysins are manufactured in the liver. He suggests that perhaps the increase in the size of the liver and the spleen in cases of infectious disease is due to the attempt to regulate the leukocytolytic property of the blood. He has some reason to think that the liver arrests particularly the destruction of the polymorphonuclear leukocytes, whilst the thyroid body favors the increase of the uninuclear cells in the blood.

ABDOMINAL CAESARIAN SECTION. Josue A. Beruti, *Revista del Circulo Medico Argentina*. Beruti reports a case of an Italian woman, 30 years old, on whom this operation was performed four times. As a child she had rickets and suffered with a great deformity of the bones which finally resulted in a double spontaneous subluxation of the femora. Three of the incisions were in the same line—slight thinning of the abdominal wall resulting, but no hernia. A very slight thinning of the uterine wall was noted. No untoward symptoms accompanied any of the deliveries. Her four children, all boys, are alive and well. This case is reminiscent of one which occurred in Boston some years ago. This woman had had three Cæsarian Sections. The fourth labor set in and surgical assistance was summoned hurriedly. But before the surgeons arrived the child was born per vias naturales, which proves at least that the musculature of the uterus had not been weakened to any great extent by previous operative measures.

PHYSIOLOGIC AND THERAPEUTIC ACTION OF THORIUM DERIVATIVES. De Nobele of Gand, *Arch. d'Elect. Med.*, July 10, 1913. Berzelius discovered thorium oxid in 1828, and, shortly after, isolated the metal. The minerals richest in thorium are monazite, a sand found in Brazil along certain rivers directly tributary to the ocean, thorite and thorianite. Hahn first extracted considerable quantities of radioactive derivatives of thorium from the residue of a mantle factory, in the form of the nitrate which is still the salt most used industrially. The pure salts of thorium are white, neither fluorescent nor phosphorescent, but show a marked tendency to pass into the colloid state. All salts of thorium are precipitated as oxalates. The oxid, formed by cal-

cining the oxalate, is a white amorphous powder, having the power of condensing gases on its surface. The Curies discovered that certain thorium minerals emitted rays analogous to those of uranium and radium. There is somewhat contradictory testimony as to whether these rays are due to thorium itself, but Leslie has recently apparently proved that it does produce alpha rays, of very feeble degree and short range. Rutherford and Hahn, however, have shown that, by the disintegration of thorium, a very powerfully radio-active substance termed radio-thorium is produced. Dadourian and Boltwood, by different methods, have shown that while the thorium minerals are radio-active in proportion to their content of radio-thorium, pure thorium salts have only half of this radio-activity. This suggests the elimination of radio-thorium in the preparation of the pure thorium salts. Hahn, however, has found that thorium salts lose in radio-activity for three years, then regain their activity gradually up to a stable point. Hence, he concludes that the substance eliminated is an intermediate product between thorium and radio-thorium, which he terms meso-thorium. He has even recovered meso-thorium from the waste in the preparation of thorium proper. Two varieties of meso-thorium are described, the first losing half its power in five and one-half years, the second emitting beta and gamma rays and being destroyed in 6.2 hours. Both give birth to radio-thorium, which emits alpha rays and lives about two years, giving birth, in turn, to thorium X, the emanation from thorium, and to four types of thorium designated as A, B, C and D. Mesothorium, according to Soddy, is closely analogous to barium. In addition, minute quantities of radium are found in preparations of meso-thorium.

Mesothorium has been used therapeutically in plasters, capsules of glass or metal or by injection. It requires no filter and can be applied like radium. It costs only a quarter as much, but is reduced to half its efficiency in twenty years, whereas the life of radium is 1760 years. (Note—The calm way in which transmutation of metals is now mentioned, the genealogic terms applied to them and the very definite statements as to their "life" is somewhat disconcerting to one who studied physics and chemistry a few years ago.) Various authors are cited who have obtained marked amelioration of cancers, lupus, etc., by the use of meso-thorium, apparently by the stimulation of fibrous tissue, with new capillaries, which choke out the meoplastic cells.

Of all radio-active products of thorium, the most interesting is thorium X, of the fourth generation from the disintegration of thorium, and immediately preceding thorium emanation, as

radium precedes radium emanation. Thorium X gains 10-20 per cent. in efficiency in the first day after its production, then loses about 17.5 per cent. a day till, by the third or fourth day, it possesses only 50 per cent. of its original power. Thorium X probably owes its activity to the nascence of thorium emanation, which dies very rapidly, in 53 seconds, giving place successively to thorium A, B, C and D. It thus results that it emanates soft alpha and beta rays, but, at the end of a short time, also gamma rays, in consequence of the formation of thorium D. Thorium X is supplied by Knöfler of Berlin in physiologic serum, 1 c.c. of which contains one hundred thousandth of a milligram of thorium X and represents an activity of a million electro-static units of Mache. This costs \$2.50, but, unfortunately, loses about a fifth of its activity every day, so that its use is practical only in the vicinity of the place of manufacture, and for this reason most of the reports upon it are from German physicians. It has been employed subcutaneously, intravenously, by inhalation, drafts, baths, and by electrolysis introduction. Plesch and Karzog have shown by animal experiments (to which antivivisectionists should scarcely object) that about 12-18 per cent. is eliminated in the urine and fæces, about 80 per cent. being retained in the organism. Its fixation in the tissues occurs mainly in the medulla of bones. In 24 hours, 64 per cent. is found in such combination, the remainder in the intestine, liver and suprarenal capsules. Pappenheim and Plesch by administering lethal doses to rabbits have observed a rapid destruction of leucocytes and even a complete disappearance from the blood. The lymphocytes disappear first, then the uninuclears, eosinophiles and mast cells, in order, the multiformenuclears being the most resistant. The red cells show marked anisocytosis, but not degeneration and there are no blastocytes. At the beginning of the third day there are usually no polymorphic cells left and death generally occurs on the fourth day. Consecutive injections of sodium nucleinate do not succeed in restoring the leucocytes. Macroscopically, there are no hæmorrhages; the medulla of the bones is dark, the spleen black and atrophic.

Naturally, thorium X has been tried in leucocythæmia and with results, by numerous authors, surprisingly in accord with the theory. Plesch reduced the white cells from 190,000 to 4,186 in 15 days. Other symptoms were ameliorated and the spleen reduced in size. Acting on the principle of the opposite action of small doses, minute doses have been tried in pernicious anæmia with equally brilliant results, Plesch claiming a gain from 390,000 to 3,000,000 in 23 days.

While radium augments the activity of certain ferments, thorium X has no action on either digestive ferments nor bacteria. It has no action on respiration in the normal subject, but has a favorable action in pathologic modifications. It augments the cardiac diastole in cold-blooded animals. In warm-blooded animals, including man, it has little action on the blood pressure normally, but lowers states of high blood pressure, the effect lasting for several days. It augments nutritive exchanges, increasing both the consumption of oxygen and the elimination of carbon dioxid. In obesity, Plesch records a loss of 20 kilograms from 114, in 41 days. In gout, uric acid and purins are increased in the urine and the tophi diminish. Favorable results have been obtained in muscular and articular rheumatism, arthritis deformans and sclerodermia.

Caan and Czerny have employed thorium X in 106 cases of tumor, mostly cancer, but including 10 malignant lymphomata, with favorable influence in 40 per cent.

On the other hand, fatal results have been reported, as well as local burns from subcutaneous injections, probably due to the retention of radiothorium. Hence intravenous injections are to be preferred. Internal administration has caused diarrhœa and even hæmorrhages. Hence, a diet rich in waste, cathartics and enemata are recommended. Gastric and intestinal hæmorrhages, inflammations of glandular organs and even "hæmorrhagic diatheses," including the disappearance of the bony medulla in one or two days and its replacement with a clot of blood, have been ascribed to too large doses. 3000-5000 electrostatic units of Mache is the maximum dose according to Plesch.

Recently, Caan has used a special chlorid of thorium, resulting from the manufacture of mesothorium, and hence including traces of this substance, in experimental carcinoma and sarcoma of rats and mice. After three or four injections, on alternate days, into the tumors, necrosis sets in, is followed by healthy granulations and a normal cicatricial tissue results in eight days.

(Note—We have translated this article almost in full, on account of its fascinating interest. Considered simply as a story, such an account surpasses Jules Verne and H. Rider Haggard. The play given the imagination in this and certain other phases of scientific literature is in marked contrast to the pragmatism of a few years ago. And, in addition, the most skeptic reader must admit the weight of authority of technically trained scientists and clinicians and must acknowledge at least the possibility that what he is tempted to consider mere dreams, may prove to be actual facts, fraught with the most wonderfully practical benefit to mankind.)

The following diagrammatic representation of these series of radio-active elements shows the order in which the products occur, their periods, and the rays which they give off in the process of their transmutation:

URANIUM 1 5,000,000,000 years alpha rays URANIUM 2 1,000,000 years (?) alpha rays URANIUM X 24.6 days beta, gamma rays URANIUM Y 1.5 days beta rays IONIUM 200,000 years (?) alpha rays RADIUM 2,000 years alpha rays EMANATION (Niton) 3.86 days alpha rays RADIUM A 3 minutes alpha rays RADIUM B 26.8 minutes beta, gamma rays RADIUM C 19.5 minutes alpha, beta, gamma rays RADIUM D 16.5 years beta rays RADIUM E 5.0 days beta, gamma rays RADIUM F (polonium) 136 days alpha rays LEAD (?)	ACTINIUM Period unknown Rayless RADIO ACTINIUM 19.5 days alpha rays ACTINIUM X 10.2 days alpha rays ACT. EMANATION 3.9 seconds alpha rays ACTINIUM A 0.002 second alpha rays ACTINIUM B 36 minutes beta rays ACTINIUM C 21 minutes alpha rays ACTINIUM D 4.71 minutes alpha, beta, gamma rays	THORIUM 13,000,000,000 years alpha rays MESOTHORIUM 1 5.5 years Rayless MESOTHORIUM 2 6.2 hours beta, gamma rays RADIOTHORIUM 2 years alpha rays THORIUM X 3.65 days alpha rays TH. EMANATION 54 seconds alpha rays THORIUM A 0.14 second alpha rays THORIUM B 10.6 hours beta rays THORIUM C1 60 minutes alpha rays THORIUM C2 Period very short (?) alpha rays THORIUM D 3.1 minutes beta, gamma rays BISMUTH (?)
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ORIGINAL ARTICLES

The right is reserved to decline papers not dealing with practical medical and surgical subjects and such as might offend or fail to interest readers. Contributors are solely responsible for opinions, methods of expression and revision of proof.

Retention of the Gastric Contents

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Presented to the Dominion Medical Association, London, Ontario, June 24-27, 1913.

IN discussing the subject of the retention of the stomach contents, normal gastric motility must be thoroughly understood. Gastric tonus is a state of more or less shortening of the circular muscle of the stomach.* Peristaltic waves are independent of intragastric pressure. The peristalsis of the stomach consists of a series of continuous waves following each other in rhythmic succession. Tone is necessary for normal gastric peristalsis. The function of the stomach is that of a reservoir, the contents of which it must deliver to the intestine in a definite time. In the interval the food undergoes certain changes which we term digestion. The food and secretions are churned up together and prepared before being emptied into the duodenum. The stomach does not empty itself by gravity drainage. The cardiac and pyloric portions of the stomach are divided by the angular notch, *incisura angularis*. It is the pyloric portion that has to do with propelling the food onward by deep peristaltic waves; the cardiac portion contracts and thus presses the food on toward the pylorus. The strong peristalsis in the pyloric half of the stomach churns the food to the consistency of cream. As long as food remains in the stomach this peristaltic action continues, but it stops at the pyloric orifice; it does not pass on into the duodenum.

Hydrochloric acid in the stomach relaxes the pylorus. A delay in the acid reaction in the pyloric region causes retention of food in the stomach in spite of strong peristalsis. When the acid

* W. B. Cannon, *The Mechanical Factors of Digestion*, 1911

chyme is discharged into the duodenum, the pylorus closes, for acid in the duodenum has an effect upon the pylorus directly opposite to that of acid in the stomach. The closure of the pylorus continues until all the acid in the duodenum has been neutralized, when the acid in the stomach again relaxes the pylorus and the chyme is injected into the duodenum. This alternation of movement, the opening and closing of the pylorus, continues until the stomach is completely emptied.

Retention of the stomach contents is not a disease in itself, but a symptom complex. Different names have been given it, such as dilatation of the stomach, ectasia ventriculi, gastrectasis, ischochymia, and motor insufficiency of the second degree. The cause of the condition is usually an obstruction of the pylorus; and since the pyloric stenosis eventually produces a complete pathologic picture, it has become customary to speak of gastric retention as a separate affection.

In retention due to stenosis the first effect upon the musculature of the stomach is hypertrophy; but as the pyloric obstruction becomes less and less permeable, muscular weakness and gastric dilatation result.

If the pylorus is functionally inefficient owing to a constricted lumen, motor disturbance must follow. The fundus may be compared to the auricle and the pylorus to the ventricle of the heart. In mitral regurgitation there is at first a compensating hypertrophy of the left ventricle; but as soon as this compensation is broken, dilatation occurs. This same process of hypertrophy and dilatation of the stomach musculature occurs in stenosis of the pylorus.

At one time the opinion prevailed among clinicians that abnormality in the size or position of the stomach was largely responsible for motor disturbances. It has been found, however, that greatly dilated and ptotic stomachs do not of necessity interfere with gastric motility. They are not pathologic per se.

The absolute size of a stomach is of no significance; a large and apparently dilated stomach may be functionally efficient. Ewald has given the name "megalogastria" to the normally large stomach. The material point in the diagnosis of gastric retention is not size, but stagnation of contents. A stomach in which the food contents are stagnant because they cannot be evacuated is dilated in the clinical sense.

A stomach in health should empty itself of a large meal in seven hours. The term "motor insufficiency of the first or second degree" has been given to disturbances in the motility of the stomach. In motor insufficiency of the first degree the evacuation of the stomach, though complete, is retarded. In motor

insufficiency of the second degree the stomach has entirely lost the ability to expel its contents; that is, food residues remain in the stomach permanently, inducing stagnation; and as a consequence of this chronic condition of gastric insufficiency, dilatation of the stomach ensues.

Motor insufficiency of the first degree is contingent upon a primary relaxation of the muscular wall of the stomach, or a loss of gastric tonus. This condition, which is often found, is known clinically as gastric atony or myasthenia. In gastric atony the muscles may be so greatly distended by large quantities of food as to constitute a condition of transient dilatation of the stomach, but this condition must be differentiated from established or permanent dilatation. Should a person with a normal musculature drink a sufficient quantity of water, the lower border of the stomach would descend to the level of the umbilicus, as shown by gastric dullness or the X-ray; but an atonic stomach may be so distended by fluids that the lower border falls below this point. Splashing sounds elicited when the stomach should be empty, help to confirm the diagnosis of atony. The stomach in a condition of atony contains food remnants seven hours after the ingestion of a full meal; it, however, empties itself completely during the night after a full meal. This is the all-important point in arriving at a positive clinical diagnosis of atony.

In motor insufficiency of the second degree there is an obstruction to the pyloric outlet. The musculature is hypertonic rather than atonic. The gastric walls are hypertrophied from the peristaltic movements of the stomach in its persistent efforts to empty itself. Careful clinical and anatomic examinations have shown us that stenosis of the pylorus is the cause of motor insufficiency of the second degree. The lumen of the pylorus may be narrowed from the inside or from the outside; it may be cicatrized and contracted from the healing of gastric ulcers, or there may be cicatricial tissue as a result of healed perforations from biliary calculi. Spastic stenosis of the pylorus is by no means a rare condition; it is caused by the irritating effect of the ingesta upon erosion or fissure of the pylorus or by an abnormally high degree of gastric acidity. This closure of the pylorus is at first periodic (pylorospasm), but when the attacks become more frequent there results a permanent stenosis. Hypertrophy of the pylorus may result from chronic gastritis, angulation from gastropexia, perigastric adhesions, epigastric hernia, or repeated injuries in this portion of the stomach. In hypertrophic changes in the pylorus, the process is slowly progressive. These cases pass from mechanical motor insufficiency (atony) to motor insufficiency of the second degree (dilatation).

Syphilis may become an etiologic factor in chronic hypertrophy of the pylorus. Internal stenosis resulting from malignant tumors is by no means rare. Polypi and myomata are occasionally met with. Adhesions of the stomach to neighboring organs or to abdominal tumors may cause pyloric stenosis by compression or by bending the pylorus upon itself. Among the more remote causes a right movable kidney may be mentioned.

Though pyloric stenosis may be the starting point of gastric dilatation, this result does not follow so long as the stomach musculature is capable of overcoming the obstruction. Stenosis which develops slowly leads to hypertrophy of the musculature precisely as in valvular insufficiency. This compensation may render efficient service for a long time—under certain circumstances for life. But indiscretion in diet may throw too much work upon the hypertrophic musculature, or the stenosis may increase by cicatrization; in either case, retention of the gastric contents is apt to follow, with consequent dilatation of the stomach. We may say that dilatation of the stomach is a pyloric affection in the stage of disturbed muscular compensation.

It was not until Kussmaul introduced the use of the stomach tube that a complete revolution in the diagnosis and treatment of retention of the stomach contents was rendered possible. A precise diagnosis cannot be made without the aid of the stomach tube; but with this aid and intelligent, systematic examination of the stomach contents, the physician may make an early and accurate diagnosis and save the patient much suffering.

Next to ulcer, carcinoma of the pylorus is the most important and dangerous cause of occlusion of the pyloric lumen. The differentiation is often a very difficult one. A tumor may be so small and smooth as to entirely escape palpation, and there may be nothing but the motor disturbance to indicate stenosis.

A grave complication of ulcer is perigastritis. Adhesions may change the lumen of the pylorus by displacement and distortion. Cholecystitis may lead to the same result, as it may impede the motility of the pylorus by adhesions, forming the cobwebs of Morris. I recall a case of gastric retention where all the clinical symptoms pointed to a carcinomatous affection. Stagnation, with lactic acid, pus and blood in the gastric contents were present. At operation the stomach was dilated, but there was no tumor. Instead, there was found an infected gall-bladder, with gall-stones and adhesions. The gall-stones were removed, the bladder drained, and the patient made a complete recovery.

An exact anamnesis assists greatly in making out the actual cause of the affection. The various data of the entire course of

the affection should be carefully recorded before a physical examination is made. An affection that dates back several years is probably not malignant, but it should always be remembered that an old ulcer may have become carcinomatous.

By far the most important symptom of gastric retention is vomiting, which is usually profuse. At first it does not occur often, but the intervals continue to grow shorter until at last large quantities, apparently larger than those ingested, are vomited every day. The vomitus will contain food remnants many days old, for food that is not readily digestible may remain in the stomach for weeks.

On standing in a sedimentation glass, the vomitus usually separates into three layers. The solid particles, being the heaviest, sink to the bottom; the fluid above is cloudy, and the top layer consists of more or less viscid mucus permeated by gas bubbles. This stratification in three layers is thoroughly characteristic of all forms of gastric retention, which are due to or associated with stenosis of the pylorus.

The vomiting of malignant stenosis is totally different, especially after the affection has reached an advanced stage. The vomitus is no longer dilute, but viscid—like a thick soup and permeated by mucus masses, everything being so closely intermixed that it is difficult to diffuse the mass with water. The odor is peculiarly mouldy, sometimes absolutely putrid like decomposed tissue. The food remnants are almost unchanged. Meat can be found days after being taken into the stomach, and even farinaceous food is undigested. The appearance of the gastric contents is so characteristic as to be almost sufficient of itself to determine the diagnosis. On the other hand, there may be demonstrable carcinoma when the gastric contents do not present this characteristic appearance.

Admixture of blood in the gastric contents is less frequent in benign stenosis. According to quantity and the time the blood has been stagnant in the stomach, its color varies from light yellow to dark brown. At times the admixture of blood can only be detected microscopically or chemically. Persistent occult hemorrhages occur in malignant stenosis, and they can be demonstrated both in the stomach contents and in the feces. Profuse hematemesis occurs much more frequently in benign stenosis with ulcer than in the malignant form.

The patient often suffers severe pains, which will not subside until the stomach has been emptied by vomiting or lavage. Or the sensation may be simply one of pressure, fullness and discomfort. The severe pains are probably the consequence of

exaggerated distention from the gases of fermentation. As soon as the patients learn that evacuation of the stomach gives relief they purposely induce vomiting by putting a finger into the throat.

A very uncomfortable manifestation is the constant thirst. Since the water taken into the stomach is neither absorbed nor passed into the duodenum, the body becomes impoverished for fluid. That as much water as possible may be retained within the body (another instance of physiologic compensation), less than the normal proportion is eliminated by the kidneys. Patients are often unable to speak on account of the dryness of the tongue. There is usually constipation, which increases with the increase of stagnation. Insufficient absorption of water and the daily loss of water are responsible for this condition.

Nutrition suffers in all cases, whether the cause of the pyloric affection be malignant or not. Losses in weight of forty or fifty pounds are by no means rare. There are also characteristic peculiarities in the appearance of patients. If the nutritive disturbances are very considerable and there occurs an exacerbation of stagnation and fermentation in debilitated patients, the inanition may result in grave delirium, which will subside if it is possible to improve the digestion.

The examination of patients should include the entire body. Inspection of the abdomen may furnish valuable information. Peristaltic waves from left to right and gradually disappearing at the pylorus may occasionally be seen. This manifestation is most important and decisive of pyloric stenosis. The whole stomach may contract and its outline easily be seen through the abdominal wall. But this phenomenon is not always pronounced and may be absent; cold seems to elicit it most readily. By palpating the wall of the abdomen during this manifestation of "stomach stiffening," the curvature can be distinctly perceived.

The succussion sound has been erroneously looked upon as a pathognomonic sign of dilatation of the stomach. In nearly every individual who has ingested large quantities of fluids and whose abdominal walls are somewhat atonic, the succussion sound can be elicited; consequently, a symptom of this kind can only be utilized for diagnostic purposes with a certain measure of precaution. The succussion sound is suspicious if it occurs with an empty stomach in the morning or several hours after a meal, providing no large quantities of liquids have been ingested; but a diagnosis which depends exclusively upon this phenomenon is altogether unreliable.

A question of importance is whether the succussion sound occurs above the umbilicus or below. It is difficult to tell whether the sound proceeds from the stomach or from the intestines, and for this reason great caution is necessary. The succussion sound, present at a time when the stomach should be empty, presupposes a large atonic stomach and is suggestive of dilatation.

The size of the stomach can be easily determined by auscultatory percussion. Inflation of air or carbon dioxide for that purpose is frequently done. The X-ray after ingestion of bismuth is most reliable. When there is stenosis the shadow shows a distorted duodenal cap. After the size of the stomach has been determined, its capacity of distention can be learned by percussing the lower border during lavage after one pint of water has been introduced. The level to which the dullness sinks can in this way be clearly made out.

But nothing short of the stomach tube can furnish a correct diagnosis. The normal stomach should be empty six to seven hours after a test meal, and if the stomach is washed out at this time stagnation, if present, is easily discovered. Again, the patient is given with the evening meal, rice, raisins and prunes, and the contents of the stomach are removed the next morning before breakfast. If the stomach is found to be empty, there is no retention, no matter what size the organ has attained. The persistent presence of food remnants in a fasting stomach is decisive of retention.

Demonstration of lactic acid and the determination of the reaction for hydrochloric acid are of decided importance in determining whether a stenosis is benign or malignant. In nearly all cases of retention which have developed from a pyloric ulcer or its scar, there is hyperchlorhydria. In primary carcinoma there is almost always achlorhydria. Carcinoma must never be excluded, however, because hydrochloric acid secretion is normal or excessive, for when a carcinoma develops on the site of an old ulcer, hyperchlorhydria may persist for life. A decision can only be made after continued observation. The demonstration of occult blood in the feces is of great importance.

Sarcinæ and yeast cells are often seen microscopically. Sarcinæ thrive best in the presence of hydrochloric acid, and when found in the gastric contents are suggestive of benign stenosis.

Malignant stenosis is characterized by the presence of the lactic acid bacillus of Oppler-Boas, a sign which is almost pathognomonic. However, the demonstration of these bacilli alone should never be made the basis of a diagnosis, as deception is possible.

X-ray examination should never be neglected. In all doubtful cases the presence or absence of a tumor can rapidly be established by means of it, and if a tumor is found to be present the case can be referred to the surgeon at an earlier date than would have been possible with any other method of examination.

The most difficult problem the diagnostician faces is early proof of the benignness or malignity of the underlying affection. This is important because the therapy depends upon it. In case of malignity, nothing but its early recognition can save the patient. We should endeavor, therefore, to arrive at as early a decision as possible by resorting to all applicable methods. Unfortunately, our knowledge and methods of examination are not sufficiently advanced to enable us to make an early and reliable diagnosis with absolute certainty.

The difficulties are least in the presence of a primary pyloric carcinoma. The rapid increase of the stenosis, the accompanying severe mucous catarrh of the stomach, the presence of lactic acid, deficiency of hydrochloric acid, the presence of the Oppler-Boas bacillus, rapid loss of weight, increase of stagnation in spite of careful dieting and regular lavage, occult blood in the feces, and, above all, the demonstration of a pyloric tumor, should secure a prompt diagnosis. But even if no tumor can be felt, a negative diagnosis cannot be safely made without an X-ray examination. Explorative laparotomy does not always admit of a definite decision as to whether there is carcinoma or not.

A secondary carcinoma which has developed on the site of an old ulcer often presents insurmountable obstacles to an early diagnosis. Knowing as we do that an ulcer very frequently undergoes carcinomatous degeneration (Mayo), early operation is urgently to be advised.

The treatment of gastric retention is at first always internal; it would be a great mistake to refer every case to the surgeon. The most important point is the diet, which will vary according to the degree of acidity of the stomach contents and the chronicity of the affection. Meat is practically undigestible in cases of anacidity.

Since it is impossible to supply sufficient water for the body's wants by way of the mouth, it is advisable to give small saline enemas several times in the course of the day, or to introduce water through the rectum by the drop method.

Lavage of the stomach is the sovereign means of unloading the stomach, removing fermentation and decreasing the catarrhal condition. The irrigations should be carried out very thoroughly, for they frequently improve the appetite and stop vomiting.

Cohnheim's oil treatment is often attended with excellent results. In benign stenosis, surgical intervention should never be resorted to until the patient has been given the benefit of the oil cure. The latter will also favorably influence hypersecretion.

Wearing a well fitting stomach binder will give patients great comfort, as it will afford support to the enlarged stomach, facilitating its evacuation.

If in spite of rational treatment, including the dietary, irrigations, etc., retention cannot be influenced, if the urine does not increase in quantity, if there is loss of weight, and if no improvement is obtained either by the rest cure or by the oil treatment, then operation should be advised, even in cases of benign stenosis. Surgical intervention is absolutely indicated as soon as malignity is discovered, unless there be marked metastasis or the tumor has attained to such proportions as to frustrate every hope of success by radical operation. Unfortunately, the idea held out by some surgeons, that with the performance of laparotomy the whole situation is cleared up, is absolutely wrong, for carcinoma cannot with certainty be distinguished from an inflammatory tumor without the microscope. As a matter of course, early operation should always be advised in suspicious cases.

I have used Einhorn's pyloric dilator with remarkable success in one case of retention due to benign stenosis. The patient was a man forty-eight years of age. He had been sick nine years. For the last five years the great discomfort he experienced compelled him to wash out his stomach frequently. Pain, and sometimes vomiting, would come on about two hours after meals. At times he would vomit enormous quantities of food that he had taken days before. He had lost thirty pounds in weight; was tired quickly; had backache and was constipated. His stomach contents showed stagnation, with hyperchlorhydria. No *Oppler-Boas* bacilli could be found, but there was an abundance of *sarcinæ*. The feces contained no occult blood. The use of the pyloric dilator brought about an apparently complete recovery. The dilator was used only three times during twelve days. The patient improved so rapidly that it was unnecessary to do any more stretching of the pylorus. He regained his weight and strength. It is now eighteen months since the last stretching.

The pyloric dilator consists of a thin rubber tube 80 centimeters long, with a small metal end piece. Next to this metal piece and fastened to it and the tube is a tiny rubber balloon covered with silk gauze. The portion of the tube covered by the balloon is perforated in several places for the passage of air

into the balloon, and at the upper end of the tube there is a stopcock and a graduated glass syringe, the latter for inflating the balloon. The balloon being emptied of air, the cock is closed. The end piece of the dilator is dipped into warm water and introduced into the patient's pharynx. The patient drinks some water and the dilator moves into the stomach, where it is left undisturbed over night. In the morning, the balloon now being in the duodenum, the stretching is performed. The balloon is first inflated, and as the tube is drawn upward and forward there is a sensation as if the end of the dilator were held tight by something that drags along with it. The balloon is then slightly deflated by drawing on the piston of the syringe. This is done repeatedly until the end of the dilator passes upward through the pylorus.

32 West Adams Avenue.

INFLUENCE OF X-RAYS ON GERMINATION. Drevon, *Arch. d'Elec. Med.*, July 10, 1913, page 45, finds a stimulant action on sprouting grains, with mild irradiation, especially combined with warmth. In the discussion, the question was raised whether strong rays would not have a deterrent effect in accordance with the general principle observed for other therapeutic means that a difference of dose, or strength causes opposite effects. The question was not definitely answered. (Note—When we consider the well known application of this principle to various drugs, mechanic methods, heat, and other forms of radiant energy, it is only fair to acknowledge that there is something to the doctrine of *similia similibus*).

TREATMENT OF AMOEBIC DYSENTERY AND LIVER ABSCESS, Dessy and Marotta, *La Semana Medica*, April 3, 1913. Dessy and Marotta report a case treated according to the method recommended by Rogers of Calcutta. This treatment is only effective in the amoebic form of dysentery. 2-6 centigrammes of emetin are administered by subcutaneous injection daily. Their patient had 32 bowel movements a day. Amoebæ in large numbers were found. The effect of the emetin was immediate; the stools were greatly reduced in number, less liquid, less mucus, and on microscopic examination, numbers of dead amoebæ were found. Four injections in all were given, when the patient had apparently returned to normal.

Further Remarks on Isotonic Sea Water in Therapeutics.

BY ROLLIN H. STEVENS, M.D.

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IN my article which appeared in the *BUFFALO MEDICAL JOURNAL* in February of this year, I briefly described Quinton's theories of the origin of the animal plasma from the sea, and the preservation of the chemical and physical characters of the latter in the plasma throughout the animal series.

This is briefly stated in Quinton's more general law of Marine Constancy, thus:

"Animal life, which appeared in the cellular state in the seas, has tended to maintain for its high cellular functioning, throughout the zoological series, the cells composing each organism in a marine medium. It has not maintained this medium in all organisms, but those in which the maintenance has not been effected have undergone a vital decadence."

The latter clause applies only to a comparatively few aerial and fresh water invertebrates, all the vertebrates conforming to this law. He goes further and states that for the high functioning of cells, as in the case of mammalia, birds, and some insects, the original temperature and saline concentration has also been preserved, the sea having originally in the precambrian period probably been about $37^{\circ}\text{C}+$ and more dilute than at present.

As a part of the basis for the conclusions he compares analyses of modern sea waters, mineral waters (from the beds of ancient seas) and of plasmas of various forms of animal life. He finds the mineral constitution of plasmas of higher vertebrates, for instance, and of ancient or modern sea water to bear a very close resemblance—the difference between ancient and modern sea waters being one chiefly of concentration.

For instance, the elements found in sea water have been arranged in groups according to their importance, as follows:

1. Cl., and Na. composing .84 of total solids.
2. S. Mg. K. and Ca composing .14 of total solids.
3. Br. C, Si, Fe, N, Fol., P, Li, I, Bo. composing 0.089997 of total solids.
4. As., Cu. Ag., Au., Zn., Mn., Str., Ba., Cesium, Rubid, Al., Pb. and Co., forming together 0.000003.

Quinton divides the body into four great divisions, namely:

1. "Vital Medium"—the total plasma composing $1/3$ of the weight of the body and bathing all the cells.

2. Living material—composed of all the cells of the organism endowed with life.

3. Dead material—or the ensemble of cellular productions only later playing in the organism the purely physical role of union, isolation, protection, or support.

4. Secreting (or excreting) material—all the cellular secretions for organic needs.

By “vital medium,” or plasma, Quinton means the fluid portion of the entire body, not only that of the blood, and he values its quantity at $\frac{1}{3}$ the weight of the body. The mass of blood is $\frac{1}{12}$ the weight of the body, and is composed of two almost equal portions—the plasma and cells. The rest of the plasma comprises that of imbibition in the various cells (devoid of vessels) the interstitial and the lymphatic. Quinton shows by physiological experiment and chemical analyses that the former penetrates the fundamental substance of epithelium, connective tissue, and cartilage.

Vital Medium or Plasma—Examinations of plasma show Cl. and Na. domination in almost equal proportions, constituting .90 of total solids.

In the second group of plasma elements we find K, Ca, Mg, together forming .07 or .08 of the dissolved salts.

In the third group are P. C. Si. N (ammonia) Fl. Fe., I, Br., Mn. Cu. Pb. Zn. Li. Ag. As. Bor. Ba. Al., constituting the balance.

These elements do not appear in exactly the same proportions as in modern sea water, but due allowance must be made for greater concentration having taken place in the ages since the ancient seas, also for changes in the animal economy due to environment and the many vicissitudes of life in the same time.

But here in plasma are enumerated only twenty-four elements as against twenty-nine in sea water. Of the five marine bodies not yet recognized in the animal organism, three, strontium, rubidium and coesium, Quinton says, are more than probably present. Gold is also likely there. There is no information concerning the presence of cobalt alone to complete the group. But Quinton points out that the sole analysis which determined cobalt present in sea water was a physiological one, for it is in organic combination. So we find practically the same elements in approximately the same doses in plasma as in sea water. Many of the elements—those of the latter group—are in extraordinarily infinitesimal amounts, and yet, according to a physiological micro-chemistry now fairly well under way, these infinitesimal elements

evidently have an important role to play in the organism in these doses, and in these doses alone.

The importance of an element in the organism is not to be gauged directly with the amount of it present. We know that loss of the small amount of iodine present means death. Hence its importance is as great as salt. Other elements will probably be discovered in both sea water and animal plasma. Indeed, there is much evidence, though Quinton does not mention it, to show that radium is present in both. So the close similarity of sea water and animal plasma is very striking, both as to their qualitative and their quantitative chemical composition.

Living Material.—In this group is included all the cells of the organism endowed with life—epithelial, glandular, amoeboid, cartilaginous osseous, muscular, nervous, blood, and all the cells of different types according to the vital functions which they perform. Some are bathed directly in the lymph stream—the blood cells for instance—while others which are massed without blood vessels—the epithelia for instance—are bathed indirectly, only through the intermediary of the uniting substance, which is impregnated with the plasma.

The mineral composition of this material is quite typical and quite different from that of the “vital medium” or plasma.

The dominating salt of the latter and of sea water is chloride of sodium, but the principal salt of “living material” is the phosphate of potassium in the proportion of about .64 or the total salts.

“Dead, or not Immediately Living Material.”

By this term Quinton means all the solid elements of the organism which are not living cells. Some of this material is cellular, as the corneal layer of the epidermis, the nails, the hair, etc., and other is extra-cellular, as the fundamental substances (stroma) of mucous tissue, cartilage, bone, fibres of elastic and fibrous tissue, enamel of teeth, intercellular cement, etc., etc.

The mineral composition of this material differs again from the other two, and analyses by many different observers show it to be composed chiefly of phosphate of lime in the vertebrates, in the proportion about .90 of total salts; and of carbonate of lime in vertebrates in the proportion of about .65 to .99 of total salts.

Secreting Material.—This material is of numerous kinds in the organism and is composed of the material secreted by many closed glands into the vital medium or plasma, where it remains largely unknown and undifferentiated; the material secreted for digestive purposes, such as gastric juice, bile, pancreatic fluid, saliva, etc., excrementary material such as urine, sweat, etc., and nutritive material, as milk.

Analyses of secretive material show it to be very diverse; first, in the same animal according to glandular function; second, diverse one animal from another for the same function; third, diverse in the same animal for the same function. So there is no mineral for secreting material that is typical or characteristic, thus differing from the saline constancy of the other three divisions.

There is no sample of secreted material which has the same mineral composition as the plasma or "vital medium."

Therefore, he concludes, the four kinds of material of which the body is composed present mineral personalities entirely distinct one from the other, and only one, the vital medium, is the same as sea water. "As these different personalities are constituted at the expense of a common alimentation, alimentation is then incapable of explaining any of them in their peculiar particularities. None is the passive result of alimentation."

Indeed, Quinton shows by a long series of chemical analyses of food stuffs of animals that the marine composition of the plasma is not only not realized *because* of alimentation, but *in spite* of alimentation, vegetable food stuffs and even exsanguinated meat, for instance, being actually poor in sodium chloride.

So Quinton justifies the marine origin of the plasma, and its perpetuation throughout the zoological series in practically the same original conditions of chemical composition, osmotic pressure, and temperature. This is so in at least those cases where there is the highest functioning of cells. If these conditions for any reason are not maintained, disease, decadence or death probably result.

We know so little about the nature of the various protective bodies, is it not possible that they are elementary, and consequently many of them exist only in the infinitesimal state—in too small quantities to be easily determined? If so, the beneficial result from the therapeutic use of sea water may be accounted for by the fact that some of these elements are thus supplied in assimilable form. However that may be, it has been demonstrated in thousands of cases in France that subcutaneous injections of sea water in many diverse kinds of disease are often followed by satisfactory improvements and cures. My own experience extending over nearly five years has amply confirmed these results.

Quinton's comparison of the body to a tube of culture media with micro-organisms growing thereon is so apt it will bear repetition. The body's envelope, skin and mucous membrane, is the tube or flask, the "vital medium," or plasma (representing $\frac{1}{3}$ of the body) is the culture media, and growing therein are all

the cells of the organism. In growing micro-organisms how important it is to have the culture media contain the proper organic and inorganic matter for their development. So if the culture medium for our cells for any reason is deficient in certain minerals, why not supply some normal culture medium by injecting some of the pure original into the circulation? This may not, and does not cure all ills. No such claim is made. Disease is due in the first place to lack of resistance, or insufficient protection; in the second place to infection with micro-organisms of one or more species. Sometimes building up resistance is all that is necessary, as in the treatment of tuberculosis by open air and feeding. The organisms in those cases can successfully withstand the ravages of the disease germs and overcome them. In other cases, syphilis, for instance, it seems to be necessary to give a bactericidal treatment in addition to strengthening resistance.

Theoretically sea water should build up resistance, and in several diseases it seems to do this so successfully that no other treatment is necessary.

In the class of diseases requiring also bactericidal treatment, especially chronic cases of tuberculosis and syphilis, sea water is a valuable adjuvant. I find it of some value in many skin diseases of a chronic nature, but particularly in psoriasis, where in large doses it seems to be almost a specific. I cannot report fully on these cases as yet, as time enough has not elapsed since I began to use the larger doses which have given much more uniform and satisfactory results than the smaller doses.

Recently in a case of general psoriasis of several years standing in a girl of sixteen, weighing about 105, the eruption began to fade after the first dose, and absolutely disappeared, leaving not a trace on the skin anywhere after ten doses of 300 to 400 c.c. each given a week apart.

In another case a man 32 years of age and weighing about 165, 400 c.c. doses once a week, improved, but did not make much headway. I increased to 600 c.c. and 700 c.c. at a dose and marked improvement was immediate. The case has only had two doses the latter size and is not yet healed.

Similar experience was had in an inveterate case in a woman 45 years of age and weighing 160. Only slight improvement followed doses of 50 c.c. to 200 c.c. twice a week and finally 400 c.c. once a week. But when 600 to 800 c.c. were given the eruption rapidly healed and a cure at least of a year's duration up to the present time was the result.

In all I have eight cases of psoriasis who have been faithful in taking the treatment. Seven of these have been influenced very favorably or apparently cured, while one, the first one

treated—with small doses for several months—failed to respond. I believe now the trouble was due to insufficient dosage. There was a time when I dreaded seeing cases of psoriasis, because, as a rule, it was not possible to give more than temporary relief, with X-ray or ointments, but now I am hopeful of permanent cures. The dosage I find to be a very important matter. It will not do to give these doses to all cases. They aggravate some cases of eczema. For instance, a case of eczematous dermatitis involving the greater portion of the body could not bear more than 30 c.c. at a dose without decidedly unpleasant aggravations. This happened five times successively after doses of from 200 c.c. graded down finally to 30 c.c., which was the largest tolerant dose. The patient was a man 45 years of age and weighed about 120 lbs. I have noted similar aggravations in other cases of eczema, as well as in some other diseases. The aggravation was usually followed by slow improvement after an interval of a week or ten days.

Quinton states in his book the dose should be 100th to 150th of the body weight. That is, a man weighing 150 lbs. should receive a pint at a dose repeated once a week to ten days. However, this plan is not generally carried out in the dispensaries of Paris, 30 c.c. to 200 c.c. being the average doses given there.

There may be more or less severe reactions after injections of moderate or large sized doses. These reactions usually appear about four hours after, and take the form of fullness and aching of the part injected, headache, chill, fever, aching of bones—like the grippe, nausea. Any one or all of these symptoms may be present. Rarely they begin much earlier—immediately after or even during the injection. They pass off in from an hour or two to forty-eight hours. Slight nausea or disgust for food often is the only reaction and may persist a day or two.

In my experience no serious results have ever followed an injection, and they give the same report in the dispensaries of Paris, so the use of properly filtered isotonic sea water may be regarded as harmless.

The longer we use the therapeutic method, the more we are convinced it is a valuable adjunct to our therapeutic armamentarium in many chronic diseases. And we are beginning to regard it almost as a specific for psoriasis, but much further experience will be necessary, of course, before that can be proven.

* The fresh sea water is diluted in proportion of three parts of sea water to five parts of the purest distilled water, filtered thru filter paper, then twice thru germ proof (Chamberland) filters under suction into sterile containers, sealed up and kept in a cool, preferably cold place for use. For most work, sea water more than sixty days old should not be used. The older sea water however seems to work well in psoriasis.

Open Window Class Rooms

BY DR. WALTER W. ROACH

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Philadelphia

IF in open window class-rooms we have a means of fortifying the child against disease, and in fresh, cold air a mental stimulant that can be controlled so as not to cause overstrain, then here is an agency for teaching to parents through the child the benefits of ventilation and hygienic surroundings which will aid materially in repelling the spread of tuberculosis in the community.

It is important, therefore, that the employment of lower temperature methods should be supervised by medical authority and not incautiously applied by laymen (teachers, etc.) in a way to do quite as much harm as good, no matter how sincere the good intent.

Care should be observed that the children in open window and fresh air class-rooms are provided with sufficient outer garments to retain the body generated heat. The effect of cold air is to create a desire for exercise—a physiologic demand for active circulation. Therefore, proper exercise should be given at frequent intervals between lesson periods, but never prolonged to fatigue, nor violent enough to excite perspiration. A soft woolen blanket should be wrapped around the feet and legs, and hood or cap, mittens and sweaters worn. This will maintain equilibrium of circulation and keep the child warm.

It should be remembered that cold vitiated air is as harmful as warm impure air. The virtue is in the purity of the air and not alone in its low temperature.

HYPERTHERMIC TREATMENT OF GONORRHOEA. Majors L. W. Harrison and G. J. Houghton, *Jour. of the Royal Army Med. Corps*, February, 1913, state that the gonococcus cannot resist a temperature of 104 F. for six hours, while the urethra can stand a temperature of 114-119 or even 122. They call attention to a fact often observed by clinicians but little known in literature, that gonorrhœa frequently subsides spontaneously during high fever or other cause, as typhoid. They apply heat to the urethra by a double catheter, the outer closed except for an outlet near the external end, the inner tube carrying a current of hot water. Treatments occupy half an hour. They report sixteen cases, successfully treated in 4-11 days, without complications.

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Independent Medical Journals and Official Organs

The profession of this country has what we consider the largest and best organ in the world as well as a considerable number of lesser ones, some very good, some rather poor, and with no regular relation between the excellence of the organ and the size and prosperity of the congregation. There has been much complaint about these various organs, both by individual members of the congregations and by those who are more or less interested in other instruments. The complaints may be reduced to two general categories. First, the organs are played by regular organists and the hymns are selected by the minister and deacons, sometimes with the advice of prominent pillars in the congregation. This fact arouses some jealousy and a good deal of honest difference of opinion as to the selection of tunes. In our opinion, this restriction is inevitable, and we approve heartily of the tunes played, although, of course, there are times when we might have a personal preference for a different selection, object to the repetition of a favorite, or wish that there might be a possibility of suiting the wishes of some humble member of the congregation who has his own favorites.

Secondly, there are abundant opportunities for criticism of the technic of the organist. Sometimes these criticisms are obviously captious, sometimes they are sincere. Sometimes we agree with them and sometimes we do not. Occasionally we may think it worth while to make these criticisms in a frank and friendly spirit; more often we approve of the policy of the pioneer western church which posted a sign over the organist: "Don't shoot the organist; he is doing the best he can." If he strikes a false note once in a while, or if the music is too Wagnerian, or if the expression and tempo do not correspond with

our own interpretation, or if the congregation or a soloist are drowned out by the organ, it is well to remember that no one is perfect and no one can please everybody all the time.

On the other hand (and let it be understood that this opinion is a personal one, long antedating any editorial interest) we do not believe that the profession should be or wants to be restricted to organ music. There is need for other instruments of independent nature. Some of these instruments are more powerful and of better tone than many of the organs. We think that we have a pretty fair one. Anyone who has subscribed to it can play any tune he likes on it, except the Mocking Bird and the Anvil Chorus. There is no order of precedence and no rule against encores, except such as ordinary courtesy and common sense suggests, when several want to play at the same time. There is not even any objection to its use by those outside the congregation, excepting the same qualification. Rather frequently, distinguished composers favor us with selections.

In closing, we wish only to say that we have no sympathy whatever with those interested in independent instruments who try to cut slits in the bellows or to throw sand in the motors of the organs.

A Desirable Kind of Contract Practice

A church of six hundred members, including all ages, has decided to employ an assistant minister. Its present minister is paid a salary about equal to the earnings of the average successful physician supported by a clientele of the same average social status, but, unlike the physician, receives many perquisites and a two months' vacation every year. The assistant is to be a young man and is to receive a beginner's wage of \$1200. (We earned about \$500 the first year, collected half of it and earned about as much more quizzing students. One of our friends was lucky enough to get a position as assistant to an old physician at \$8 per week.) It is estimated that the assistant, by his parochial work will add to the congregation sufficiently to make up the extra expense.

This form of liberality, or let us say, recognition of the value of spiritual services, is liable to cause the envy of the physician, who, with the same average support of 600 persons, has a hard row to hoe. Personally, we are glad to witness such evidence of appreciation and of determination to supplement the labors of the spiritual leader. But why would not something of the same practical spirit, not necessarily carried out in exactly the same way, be applicable to the one who cares for the bodies—and, incidentally, may have about as good an influence on the moral and religious health of the community?

How Do Quacks Get Their Address Lists?

Have you ever noticed how often you, a physician, receive circulars addressed to you as "Dr." or "M. D.," asking you to use, as a patient or as a prescriber, some nostrum of the worst type?

Have you ever reflected that it might be more than a coincidence that your patients, while confined to bed and under active treatment, receive circulars of this sort?

Have you ever seen a recently bereaved family at the moment when its emotions were being harrowed by a circular of certain cure, received a few days too late?

Have you ever been asked to join in a laugh at the expense of a very respectable, well-to-do invalid, who was offered a chance to earn good money by acting as agent for Old Dr. Curem's Platitudinous Plaster?

We have seen enough illustrations of these conditions to convince us that they are not mere coincidences. There must be enough regularly listed physicians willing to use quack medicines to pay for circularizing the entire profession in certain localities. And there must be a regular system of reporting invalids, persons with the quack medicine habit, and seeking men and especially women of more or less leisure and influence, who would yet like to add to their incomes by easy means. Just what the system is we do not know. We do know that lists of names have a relatively high commercial value; also that there are many advertisements of easy work which does not require salesmanship and which may be done without interfering with other duties. We suspect that, somehow, there is being maintained a pretty thorough system of espionage over the health of the population, with a view to putting the manufacturers of quack medicines on the right track.

Education

A man of mature years and broad scholarship, distinguished as a medical teacher, writer and practitioner, mentioned very casually the fact that some time previously he had read an article containing mathematic formulæ which he could not follow. He arranged with a high school boy to help him. Finding himself stupid, as he expressed it, the lessons were extended over a longer time than had been anticipated, but the formulæ, as well as the general subject in which they were included, were finally mastered. Right here was an illuminating explanation of why this man was what the world calls distinguished. He was willing to learn; he had a mind too grandly simple to be ashamed to learn of

one of inferior experience and standing. He was, also, very fond of and proud of his youthful teacher and happy that the latter had succeeded in his later life. Reluctantly, and only in response to cross questioning, he divulged that this success was very largely due to help and influence which the mature student had given to his youthful teacher.

We have unequivocally and consistently advocated formal education as a foundation for license and even matriculation in medical schools. But, in reviewing the lives of the older men in medicine, especially on the sad occasions when it becomes our duty to review those lives in their entirety, it has often been impressed upon us that not merely success in the superficial sense but broad scholarship and generous contribution to the fund of common knowledge have been possible in spite of very meagre formal training in schools.

The man who spends four years in studying medicine and who has all the counts required for entrance, and who has done this work simply because it is required by law, will not wind up his life as well as the man who went to a district school in the winter, who took two courses of medical lectures when he could have got a license under the old law and who studied at odd moments all his life, gaining information from every available source. True success can be won only by the man who is willing and anxious to do more than he is compelled.

We see daily instances of practical failure among the graduates of medical schools that require the most of their matriculants and that have the best equipment for turning out the most finished specimens of physicians. Indeed, the trouble is that they are finished.

The human body can store fat up to double of its own healthy, lean weight. Theoretically, this should suffice for its maintenance for about six months. But the lack of proteid and the acid toxæmia developed from the oxidation of the fat would result fatally in about forty days. Carbohydrate can be stored for about a third of a day's work; proteid for a quarter or a fifth. The fat kind of knowledge can be stored for a long time to come, but the men who depend upon this are unwieldy, sour and lacking in vigor. Real energy production and tissue formation must be acquired daily and used freely.

About the same working strength may be obtained from food at \$3.00 a week as from that at ten to fifty cents a portion. It is much the same with education. And, in either case, ingestion does not amount to so much as digestion, absorption and assimilation.

Some of our best elementary education came from Rover, Tiger and the old white horse. We need not be ashamed of it.

The old world civilization exceeded that of aboriginal America largely because the former had the help and training in mastering one's self through mastering an animal due to a relative abundance of domesticable animals, while the latter had practically none but the llama and paco.

The medical profession did not begin with bacteriologists and surgeons. Its foundation was the empiric, the nurse, untrained at that, the quack, the man with the very childlike faith in drugs. Psychotherapy would never have been thought of except at the hint of faith-curists and mesmerists. Spondylotherapy is an eminently respectable subject—the original of it is a word coined by a man so ignorant that he did not even know that pathy means suffering and not treatment. We have been saved from therapeutic nihilism by a critical study of drugs, undoubtedly suggested by the patient though superficial and self-deceptive method of drug “proving.” Our knowledge of pyrexia, of blood pressure, of Roentgenology, of bacteriology, of physiologic chemistry and pathologic microscopy, in short, nearly every detail of scientific medicine has been due to hints obtained not, it is true from the ignorant, but from those for the most part ignorant of medical problems. Twenty years ago a large part of what is now termed scientific medicine, lay with young, inexperienced physicians of no professional standing, and it has been developed largely by the boys with whom they talked and who worked up details and took and gave hints. Some of these boys have never even attached themselves to the medical profession. A very considerable part of our practical and theoretical knowledge of bacteriology is due to those whom our fathers in medicines would have despised as horse doctors, and much of our chemistry to agricultural students, despised by their associates in universities and ridiculed by practical farmers.

There is something wrong with ourselves, if we cannot learn something from every person, animal and plant, by careful observation.

Editorial Announcements

To the Physicians of Auburn: A sample copy of this issue is mailed to every physician in your city, aside from those included in the regular subscription list. We ask you to note that this Journal is especially devoted to the medical profession of Western New York, as indicated by the Associate Staff on the front cover. We aim, in every respect, to serve all parts of this region impartially. Please note the general contents of the Journal, and, especially, the headings of the various departments and the fact that a special editor has been appointed to represent

your city. Your assistance in furnishing personal and general news items is requested.

At the risk of seeming to have interested motives, it may be admitted that we would like to secure more subscribers. There is no objection to sharing subscriptions.

TOPICS OF PUBLIC INTEREST

THE DIVINING ROD. One of the silliest superstitions of the ignorant, was that certain persons, armed with a willow or hazel stick, could walk over the surface of the ground and locate, by the turning of the rod, a subterranean supply of water. A congress of scientists recently met at Halle, Germany, to consider the claims of the divining rod, and it has endorsed the superstition as a scientific and practical fact. Not only water, but two beds of potash and one of rock salt were located by the divining rod.

TRANSMUTATION OF ELEMENTS. In connection with the above, attention may again be called to the degradation of elements apparently demonstrated in studies of radio-active substances. Such results of modern science, not to mention the wonderful achievements along purely physical lines resulting in inventions that have revolutionized our ideas of what is and what is not possible, render it hard to draw the line between a proper degree of skepticism and credulity.

THE MANN ACT. The Diggs and Caminetti cases resulted in convictions, in spite of testimony that showed that there was nothing approaching white slavery in the ordinary sense. A Kansas judge has discharged a prisoner on the ground that the law was intended to cover cases in which women were exploited for business purposes and not cases of immorality. A Philadelphia judge has upheld the broad interpretation of the original cases. We were rather surprised to hear an orthodox clergyman condemn the convictions. He held that the law should not deal with cases of immorality as such and that the rulings favored black mail. We can see no sense in distinguishing between interstate immorality and intrastate or intramural immorality. And, in a good many cases there is hypocrisy in the theory that the man is the offender and the woman the innocent victim. We doubt very much whether many persons will be made moral, temperate or otherwise good, by passing laws to correspond to ethical conceptions.

A POLICEWOMAN has been appointed in Rochester.

A COLLECTION OF RADIOGRAMS, for lantern and stereoscopic use, has been begun by the Army Medical Museum at Washington, with the co-operation of various X-ray workers. We would like to see Western New York represented in this movement, not only because our territory contains several excellent radiographers, but because it offered one of the first martyrs to this phase of science, Dr. Louis Weigel of Rochester and Buffalo. And we have a personal interest in the matter, having first demonstrated in this country that the stomach could be mapped out by the fluoroscope without the introduction of instruments.

GUINEA PIGS. Those interested in raising guinea pigs should write to the U. S. Department of Agriculture at Washington for Bulletin 525, prepared by David E. Lantz. Physicians are frequently asked to suggest employment for semi-invalids, widows left without means of support, etc. The raising of guinea pigs may be available in such cases.

AROUND THE WORLD IN EIGHTY DAYS was the title of one of Jules Verne's novels, popular in the eighties, and still much read. We believe it was the only one of his novels that did not deal with what was considered at the time, an absolute impossibility, though his *Twenty Thousand Leagues Under the Sea* may now be regarded as merely a forecast of the physically possible. At any rate, the former book was considered a wild flight of the imagination, and even the author made his hero win his race against time by the narrow margin of the day lost on account of going against the apparent revolution of the sun about the earth. Recently, the earth has been toured in 35 days, 21 hours and 35 minutes, at approximately the latitude followed by Verne's hero.

WHITE PHENOLPHTHALEIN. We have recently been supplied with tablets of white phenolphthalein. It was not surprising that phenolphthalein could be rendered colorless by the addition of a small amount of some acid substance, but these tablets did not turn pink in an excess of alkali. The manufacturer insists that the tablets do contain phenolphthalein. A chemist, consulted about the matter declares that phenolphthalein does not form any combination of the nature of a salt and that the characteristic indicator reaction would be given with an alkali. We submit the question for discussion.

CLINICAL LECTURES ON SKIN DISEASES. The N. Y. Skin and Cancer Hospital announces the fifteenth annual course by Dr. L. Duncan Bulkley, on Wednesday afternoons at 4:15, in the

out-patient hall of the hospital. The series begins November 5, and is free to the profession on presentation of their office cards.

A CASE ILLUSTRATING GREAT TENACITY OF LIFE. No, this is not the one to which most of our exchanges have alluded. When in New York go to the American Museum of Natural History and ask to be shown the Peruvian skull, which clearly indicates that life must have been maintained for at least a year, after a fracture involving the lateral region of the skull, the bones uniting to form bridges with large spaces between.

IMPURE MILK. The U. S. Dept. of Agriculture announces several penalties inflicted for selling milk or cream, either skimmed, adulterated as with annatto, or containing bacillus coli or excessive numbers of ordinary bacteria. These, of course, apply only to interstate offenses.

ABORTION CASES. We note with regret, allusions in the newspapers to charges of abortion, one fatal, in our territory. It is contrary to our policy to publish reports of this nature in detail, as, in some cases, a great injustice would be done to innocent victims of circumstance, while, in all, sufficient publicity is given to these unfortunate occurrences in the daily press or in verbal reports to societies. But we feel that a note of warning should be sounded to those tempted to bring discredit upon their profession and ruin upon themselves—not to dwell upon the obvious moral and ethical principles involved.

A NEW PROFESSIONAL RISK. Militant Suffragists in London made an organized raid on physicians' offices October 9, smashing windows along Hanley street, which is a sort of medical row. The logic which led to this demonstration is clear, when it is explained. The home secretary had ordered a resumption of gavage for militants who start hunger strikes; gavage is practiced by physicians; hence the propriety of smashing windows for the profession generally. Whether gastro-enterologists were particularly favored, is not stated. Just imagine the ladies of Buffalo, Rochester, Syracuse, Auburn, Utica, etc., who are demanding the franchise, engaging in a raid of this sort. Most of these ladies are English, barring a few generations of residence in this country; they lead very much the same social and domestic life as the English; they are confronted with approximately the same political problems, so far as their sex is concerned, except that, here, we talk a little louder about liberty and legislate a little more strenuously to prevent a man or a woman from doing

as he or she pleases. Two questions suggest themselves: Why do American women who want the ballot continue to behave themselves as respectable, thinking, and, for the most part, feminine members of society, and why do English women present the same argument in a series of foolish and even criminal acts? This question involves an insight into psychology that we lack. The second question is easier to answer: Which set of women will get the vote first?

THE UNIVERSITY OF BUFFALO has an unusually large registration this year, amounting to over 700 for all departments. The newly established course in arts and sciences has an enrollment of 62, of whom 26 are taking the course as a preparation for medical study. The medical department has the following registration by classes: 90, 44, 54, 47, freshmen to seniors, in order.

EXTRAMURAL AND INTRAMURAL TYPHOID. We have several times called attention to the fact that typhoid is largely a vacational disease, and that this fact explains its autumnal rise in incidence, rather than strictly climatic phenomena; also to the fact that any large city bears the responsibility in its mortality statistics, of sanitary defects outside its limits. The Buffalo Health Department have recently made a study of this phase of the etiology with the following results:

Month	Cases	Deaths
June	11	3
July	15	5
August	29	7
September	53	6
Total	108	21
Not out of city.....		35
At summer resorts in Canada.....		18
At other parts of Canada.....		9
At summer resorts in U. S.....		4
At other parts of U. S.....		24
Off the lakes.....		2
Off the canal.....		1
Not stated		15
Total		108

It cannot be claimed that all of the 58 cases that had been outside the city owed their infection to extramural sources, but, in

some instances, an external infection was clearly indicated, notably in the group reported by Dr. C. A. Clements, of three of five persons (one a baby who escaped) infected from a spring in Victoria Park. However, of this group, a non-resident and a resident of Buffalo, were treated out of the city. Allowance must be made for the fact that a person may contract typhoid in Buffalo and be treated, successfully or not, elsewhere, but, on the whole, it is fair to assume that only half of the local typhoid mortality is attributable to local conditions, of which water may or may not be the major source. The fact that 35 persons who had typhoid had not been out of the city, does not necessarily throw the blame on the water supply. Milk is a potent factor in the etiology of typhoid, and we are inclined to suspect some of the bottled waters, imported from springs. Here may be mentioned a very practical point in medical ethics as applied to medical journals. We will not carry the advertisement of any water, or other beverage or food product, without credentials as to its sanitary purity. Whether the price is right, whether there is objection to a mixture of drugs, whether a drug is or is not efficient, whether one should or should not use alcoholic beverages in therapy, are questions on which we think our readers are competent to decide, and we believe that it is not in accordance with general principles of ethics to exclude an advertisement because of a difference of opinion. It should also be stated, as a matter of general ethics, that a great many products that we do not advertise are pure and efficient.

THE INCOME TAX. As provisionally settled, a single man is allowed a net income of \$3,000 without tax; a married man \$4,000. If, however, man and wife have separate incomes, each has an exemption of \$3,000. The medical profession should understand that, in general, business expenses are exempt, as is also current expenses of investments and among these expenses, depreciation of property is included. We mention this to anticipate an unfair rating of physicians' earnings as net instead of gross, to point out that office expenses, including a reasonable proportion of rent if the office and residence are combined, as is usually the case, expense for transportation by carriage, buggy, automobile, etc., and expense for drugs, instruments, etc., are strictly business expenses, and, if necessary, to suggest organized defense of the profession against unfair discrimination. Unfortunately, very few physicians will pay the income tax.

BACTERIAL CONTENT OF BUFFALO WATER. The dynamiting of the wreck of the steamer Richardson disturbed the sediment

in Lake Erie above the intake to such a degree as to cause a rise in bacterial content to 1120 per c.c., colon bacilli being detected even in samples of 1 c.c. We trust that this is a temporary matter and that the colon bacilli came from the spoiled grain—any grain or agricultural product being liable to contain colon bacilli from manure—and not from sewers. We draw the moral that some form of treatment of the water is desirable and that there should be a reservoir large enough to store water so that the intake need not be used for any ordinary period of agitation of the sediment at the bottom of the lake. And, while the present case is not particularly apropos, we repeat our contention, that, in spite of expense and engineering difficulties, the intake ought to be above the channel of navigation, not below it, as at present.

MALTA FEVER AND GOAT MILK. The U. S. Dept. of Agriculture have issued a bulletin warning that goat milk should be boiled and claiming that Malta Fever, from this source, has been endemic in Texas and New Mexico for at least twenty-five years. This is contrary to ordinary opinion and deserves careful attention. In advocating the goat as a domestic animal, for various purposes, especially the supply of milk for infants and invalids, and for economic reasons in places where a cow would be too large an animal to harbor, we must not overlook the danger of specific infection nor be so foolish as to steer from the Scylla of tuberculosis to the Charybdis of Malta Fever. On the other hand, it is not at all likely that all goats carry the latter infection. Pending investigation of this point, it is worth while to record the observation that pasteurization at 145 F. for twenty minutes is efficient to destroy the bacterium of Malta Fever.

PROHIBITION. Senator John D. Works of California has introduced a bill prohibiting the sale, manufacture and importation of distilled liquor, containing alcohol, except for mechanic, scientific and medicinal purposes. This bill calls for a constitutional amendment, effective three years after ratification by the legislatures of three-fourths of the States. Speaking with all the prejudice of 120 years of hereditary and personal total abstinence, we beg leave to call attention to the theory that this is a free country and to the objections to reforming anyone by law. We have already reached a point at which there is more interference with personal liberty in this land of freedom, than in any other civilized and enlightened country in the world. Personal liberty obviously implies the liability to do things to which others object, and many of these things are more or less generally considered to be wrong, harmful or unwise. Personal liberty must

necessarily stop short of direct damage to the properties and rights of others, but it is wise to allow a wide margin of doubt. A people hemmed in on all sides by restrictive legislation, representing other persons' ideas of right and safety, will retrograde in individual self control and moral sense.

STATE ROADS. It is not directly a medical matter but it is one of citizenship and of mortality statistics, that our state roads should be safe and that they should not, after being built by taxation, impose a further tax of direct expense upon those that use them. An ordinary rough country road may jar those who ride over it and increase the wear of vehicles, but a road covered with sharp cornered pieces of flint and wet with oil imposes a very direct expense and danger upon every user of rubber tired vehicles. Bicyclists have some rights, but, for several years, except for the recent limited institution of brick roads, they have been practically excluded from main highways of travel. Tire expense—and it should not be forgotten that a puncture involves actual danger from traumatism, nerve strain, physical strain and exposure—is approximately 50 per cent. greater for those who use parkways and macadamized state roads, as compared with those who use ordinary pavements and country roads. There is no more sense in submitting to the raw condition in which paid officers of the state leave the highways at present than in conceding to a surgeon the right to leave a wound without dressing after an operation.

And we want to add a few words about the Niagara Falls Boulevard. A natural, direct, beautiful route along the river could have been perfected by laying about nine miles and repairing about three miles of brick, following Delaware street to North Tonawanda. Instead of this, about sixteen miles of new pavement was laid, following a route four miles longer, varying from the limit of rural ugliness to mildly picturesque scenery. Starting near the city line with a dangerously curved and rough bit of road, it exhausts the category of irregular curves. By the courtesy of the Automobile Club, danger signs have been placed, but, in a sense, these are themselves a source of danger. Most of the accidents on this road have been due to its narrowness, as it does not provide for three vehicles coming together at once, and to running off at a tangent. The stranger sees the warning of a curve, and sees the curve, and continues at a rate of speed which he considers safe for it. Unfortunately, he does not realize till too late that the curve keeps on winding itself into a coil or else plays snap the whip with the automobile by suddenly turning in the opposite direction. Of course, this constitutes careless driving, but, in a flat country, with no engineering difficulties, no one would expect such a serpentine route.

THE FOURTH ANNUAL TUBERCULOSIS DAY will be observed on Sunday, December 7. Churches, schools, labor unions, fraternal orders, etc., will be asked to prepare special exercises. Over 1000 societies interested in the problem of tuberculosis are behind this movement for popular education. Last year 60,000 churches devoted a service to the subject of tuberculosis, and it is hoped that the number will be increased to 100,000 this year.

Infantile Paralysis

On Wednesday, August 27th, and again on Friday, August 29th, by request, Dr. Roland Meisenbach presented before the Fourth International Congress on School Hygiene some research work pertinent to infantile paralysis. Dr. E. W. Saunders of St. Louis, Dr. Roland Meisenbach of Buffalo, and Dr. W. E. Wisdom of De Queen, Arkansas, have been working on an entirely new theory as to the cause of infantile paralysis. Owing to the fact that the work bears so directly upon the health of the school child, the Congress requested its presentation at this time, although all of Dr. Meisenbach's work is not entirely completed.

Several weeks ago, before a specially called meeting of the St. Louis Medical Society, Dr. Saunders stated that he believed that acute paralysis in children was caused by the injected larvæ of some fly. Dr. Meisenbach stated that it had been known for some time that during epidemics of infantile paralysis there occurred simultaneously disease among animals, chiefly one which had all the characteristics of meningitis; the cause not being known. A few weeks ago there appeared in De Queen, Arkansas, and on the border of Texas, an epidemic of Infantile Paralysis, and at the same time an epidemic of Limber-Neck among the chickens in that locality.

The larvæ taken from the carcasses of these Limber-Neck chickens were collected and fed (not injected) to different animals, namely, monkeys, guinea pigs and chickens, and the results noted. The larvæ were first triturated in glycerine and fed to the animals orally. All of the animals showed signs of an acute paralysis in different degrees, the degree depending upon the dose of the virulent toxic larvæ and the size and resistance of the animal. Guinea pigs became paralyzed in ten to forty-eight hours after receiving five to ten virulent larvæ; monkeys required 106 to 150, and chickens much larger doses. If the dose was large, often death occurred in a short time, due to paralysis of respiration, and the local paralysis was not marked. In the animals that received smaller doses local paralysis manifested itself in twelve to thirty-six, and even forty-eight hours.

The symptoms noted, especially in the monkeys, where they could be accurately observed, were early coryza and lachrymation, with loss of appetite, rise in temperature and rapid respiration. The eyes quickly became slightly clouded, so that it was easy to recognize which animal had received the virulent larvæ. The monkeys showed a profuse nasal discharge and lost their voice; the later symptoms were local motor paralysis, and in some animals subnormal temperature and finally death. In other animals to which the toxic larvæ were given in small doses recovery took place; the latter was especially noted in the chickens. These animals given repeated small doses became somewhat immune.

One of the most convincing animals shown to the Congress by Dr. Meisenbach was the dog. A large Irish setter which inhabited the infected zone was seen to eat the carcasses of the Limber-Neck chickens. He developed a motor paralysis of both hind legs. The paralysis existed thirty days, after which the dog was bled to death for pathological purposes.

This work differs distinctly from anything which has been done in connection with infantile paralysis. The fly theory of others was not directed to the causative factor, as much as to the transmission from the human being to the animals, and from animal to animal by means of the bite. The authors are now working on incubating some of the larvæ. Dr. Meisenbach stated that the research required much work and that the pathology was being done in the most accurate way.

OUR CONTEMPORARIES

The Dietetic and Hygienic Gazette of September, reprints from our May issue, Dr. Julius Richter's article on House Operations.

The Medical Economist, the official organ of the Associated Physicians' Economic League, entered the journalistic field in August. It is a monthly magazine whose worthy object is sufficiently indicated by the title. The two numbers issued thus far contain a number of interesting articles, dealing both with the individual and the professional economic problems at present before us for solution. We are authorized to offer a club rate with this Journal of \$2.50 a year.

The *University Bison* is the organ of all departments of the University of Buffalo. It is edited by the students and by an

advisory committee of the faculties. Seven numbers are issued each year. The subscription is \$1.00. A club rate of \$2.50 with the BUFFALO MEDICAL JOURNAL is offered.

PERSONALS.

Announcements of removal, travel, and other matters of interest are requested. Please report errors in the listing of any physician in the State and other directories that we may co-operate with the State Society in securing a correct list.

Dr. Lesser Kauffman of Buffalo announces the removal of his office and residence to 534 Elmwood avenue.

Dr. W. L. Phillips of Buffalo is in Europe.

Dr. A. J. Bennett of Busti is chairman of the Democratic Committee of Chautauqua County.

Dr. Edward W. Janes of Tacoma, Wash., has moved his office to 303 S. Ninth street.

Dr. John H. Pryor of Buffalo returned late in October from a European trip of several months.

Dr. George W. MacPherson of Lancaster has moved to Los Angeles.

Burglars visited the residence of Dr. N. W. Wilson of 822 Richmond avenue, Buffalo, October 13. The following articles were among those taken: Black sealskin purse, with money, silver mounted pencil, revolver, ruby stick pin with twelve small diamonds, gold diamond stickpin.

Lt. Col. Eugene A. Smith of Saranac Lake, formerly of Buffalo, has changed his local address to 46 Franklin avenue.

OBITUARIES.

Readers are requested to report promptly the death of all physicians in Western New York, or former residents of this region, or graduates of any medical school in Western New York and to notify the families of the deceased of our desire to publish adequate obituary notices.

Dr. William Rex Patterson, Buffalo, 1901, died at his home in Lloydell, Pa., September 6, from nephritis, aged 39.

Dr. Sally A. Harris, N. Y. Medical College and Hospital for Women, 1878, died at Scarsdale, N. Y., September 29, aged 87. She was formerly a practitioner of White Plains.

Dr. L. B. Lester, Geneva, 1864, died at his home in Greenville, Mich., about September 15, aged 86.

The long list of martyrs to science is increased by the death of Dr. Charles Lester Leonard, a classmate of ours at the University of Pennsylvania in 1889, and one of the earliest Roentgenologists of Philadelphia. His death occurred at Atlantic City, September 22, from cancer, after a long period of suffering, with many operations undertaken in vain to remove the disease. He was 52 years old.

Dr. John Archibald McDonnell, Buffalo, 1875, died at his home in Chicago, September 19, aged 66. He was Professor of Surgery in the Bennett Eclectic College and a member of the State Medical Society.

Dr. Stephen G. Warren, Cleveland Homeopathic, 1865, died at his home in Attica in October. He was born in Portmen, O., in 1840.

Dr. George R. Bartran, Chicago Medical College, 1872, who had practiced for thirty-four years at Algoma, Wis., died at his old home in Smithboror, N. Y., August 27, aged 72.

Dr. C. R. Sutton (not listed in State Directory), an eye specialist of Warsaw, died October 4, aged 53. He came to Warsaw from Perry in 1910.

Dr. Omar E. Newman, Western Reserve, 1878, died at his home in Penn Yan, October 7, aged 55. He was born in Ontario County, graduated from the Canandaigua Academy in 1873. After graduating in medicine he commenced practice in Can-

andaigua and later moved to Potter. For the last twenty-five years he was a resident of Penn Yan. He was a member of the State and (Yates) County medical Societies.

Dr. Robert Wadsworth, Hahnemann of Philadelphia, 1816, died October 17, in Rochester, suddenly, while making a professional call.

SOCIETY MEETINGS.

Brief reports and announcements of meetings of societies of Western New York and of those of general scope are requested from Secretaries. Copy should be on hand by the fifteenth of each month. Full transactions will be published at cost of composition.

THE WYOMING COUNTY MEDICAL SOCIETY held its annual meeting in Warsaw, October 14. Dr. Roswell Park of Buffalo gave a paper on "Radium and Radio-activity," and Dr. De Witt H. Sherman of Buffalo led a discussion on the use of drugs in obstetrics. Officers were elected as follows: President, W. J. French of Pike; Vice-President, W. R. Thomson of Warsaw; Secretary-Treasurer, L. H. Humphrey of Silver Springs. The January meeting will be held with Dr. Mary T. Green as hostess at the Castile Sanitarium.

At the meeting of the 8th District Branch of the Medical Society of the State of New York, held at Sonyea, September 24 and 25, in connection with the 7th District Branch, the following officers were elected: President, Dr. Arthur G. Bennett, Buffalo; 1st Vice-President, Dr. Carl Leo-Wolf, Niagara Falls; 2d Vice-President, Dr. Albert Lytle, Buffalo; Secretary, Dr. E. A. Sharp, Buffalo; Treasurer, Dr. F. H. VanOrsdale, Belmont, N. Y.

THE ELMIRA ACADEMY OF MEDICINE held a luncheon before its regular meeting, October 24. Dr. Howard A. Kelly of Baltimore was the guest of honor, speaking on Radium.

THE AESCULAPIAN CLUB OF BUFFALO held a regular dinner-meeting at the Buffalo Club, October 16. Major Wm. G. Bissell, M. D., was the host. A paper on "The Other Lesion" was read by Dr. A. L. Benedict.

THE CHAUTAUQUA COUNTY MEDICAL SOCIETY held its triennial meeting at Jamestown, September 20. Dr. Paul B. Brooks of

Norwich read a paper on the prevention of venereal disease, and Dr. V. D. Bozovsky of Dunkirk one on the treatment of injuries of the hand. Dr. A. M. Grover and Dr. A. F. Jaeckle of Dunkirk were admitted to membership.

THE MEDICAL SOCIETY OF THE COUNTY OF ERIE held its regular fall meeting, October 20, in Alumni Hall, University of Buffalo. Dr. Edith R. Hatch presented a paper, "Is the Teaching of Sex Hygiene Advisable in Our Public Schools?" Drs. Lucien Howe and F. Parke Lewis led the discussion. A collation was served.

THE ROCHESTER ACADEMY OF MEDICINE, SECTION II, SURGERY, met October 8, at the Academy Rooms. Dr. Julius Auerbach of New York presented a paper, "Chronic Middle Ear Suppuration From the Standpoint of the General Practitioner." A subscription dinner was given at the Hotel Seneca.

THE BUFFALO ACADEMY OF MEDICINE has held the following meetings up to date of going to press:

October 7—Surgery. Demonstration of Pathoplasts and Autochrom Photographs (of venereal lesions), Dr. Charles Bethune; Radio-activity and Radium by Dr. Roswell Park.

October 14—Medicine. Symposium on the Proposed Ordinance for the Suppression of Unnecessary Noises. Health Commissioner Fronczak's review of the subject is promised for our next issue.

October 21—Obstetrics and Gynæcology. Presentation of a case of Pseudohermaphroditism by Dr. James E. King; Buried and Subcuticular Sutures in Perineorrhaphy (illustrated by lantern slides) by Dr. Robert L. Dickinson of Brooklyn. The discussion on the latter paper was opened by Dr. Earl P. Lothrop.

Dr. Carl G. Leo-Wolf of Niagara Falls was the guest of the evening at a farewell dinner given by the Niagara Falls Academy of Medicine on September 25th.

On the following Tuesday, Dr. Leo-Wolf sailed for Germany, where for four months he will be the guest of Prof. Finkelstein at Berlin. The exceptional opportunities for paediatric study at the Finkelstein Clinic will be at Dr. Leo-Wolf's command. Before returning home he will spend two months at Vienna.

BOOK REVIEWS

Books mentioned may be inspected at and ordered through this office. So far as possible, books received in any month will be reviewed in the issue of the second month following.

DIGEST OF COMMENTS ON THE U. S. PHARMACOPOEIA. Eighth Decennial Revision, and on the National Formulary, third edition, for the calendar year 1911. By Murray Galt Motter and Martin I. Wilbert. Published by U. S. Public Health Service.

This is a large, paper bound volume of 683 pages. The first 174 pages contain various tables of articles omitted from and added to the Pharmacopœia, fifteen drugs most commonly prescribed, atomic weights, etc., and general comments. The remainder of the work is arranged alphabetically, by official drug titles containing under each criticisms, suggestions as to improvements, modifications of tests, etc. An enormous volume of current medical and even popular literature has passed through the hands of the authors, and they have abstracted and sorted the comments analytically. If any adverse criticism is to be made, it is that they have been too conscientious in including many references of no special critical value. This is, however, a good fault and we trust that the next committee of revision will pay close attention to this work in improving the Pharmacopœia to such a degree that no elaborate argument will be necessary to induce practicing physicians to include it in their libraries.

TREATMENT OF RHEUMATIC INFECTIONS, issued by Parke, Davis & Co.; cloth bound; 134 pages.

We understand that this book will be sent gratis to any physician interested. It deals largely with the Schaefer Phylacogens and consists of excerpts from medical literature. In spite of the obvious commercial interest of the publishers, they have shown, as at other times, a commendable impartiality of view. In fact, they have simply reproduced the views of men able to judge impartially. There is no disposition to exaggerate the merits of phylacogen nor to conceal any contraindications; in fact, the contraindications which are, for the most part, obvious, are plainly indicated in the index. Schaefer's theories were carefully tested out by the co-operation of many physicians throughout the country, before the sale of phylacogens was undertaken. Their reports, while showing that not all of the symptomatic conditions commonly called rheumatism were amenable to phy-

lacogen treatment, and that, as was expected from the analogy to syphilis and other infections, residual lesions could not usually be cured, were highly favorable, and this decision has been corroborated by subsequent experience on a scale which eliminates the possibility of personal bias on the part of the physician or of psychic effect on the part of the patient. With due regard to changed conditions, it may fairly be said that the introduction of the phylacogen treatment of rheumatism—using the term in its proper sense—marks an epoch fully as important as the introduction of salicylates many years ago.

THE DOCTOR IN COURT, by Edwin Valentine Mitchell, LL.B. of the Massachusetts Bar. The Rebman Co., New York: 152 pages; \$1.00.

We like the way in which the author announces himself, barring the personal difference of a sense of allegiance to the city instead of the state and the practical desirability of locating an author, which leads us to suggest that future editions should give his residence in Boston. Imagine a medical man presenting as his credentials for authorship the fact that he was a member of the medical profession, and, therefore, prepared by the experience of his life work to treat the subject in hand.

While this is a brief treatise, it contains a surprising amount of detailed information and even citation of cases. We particularly recommend the reading of the chapters on civil and criminal responsibility and remuneration.

THE MICROTOMIST'S VADE MECUM, Arthur Bolles Lee, Baughy sur Clarens, Switzerland. P. Blakiston's Son & Co., Philadelphia; 526 pages; \$4.00.

This is the seventh edition of this standard work, the first having appeared in 1885. The scope of the work is broad, including not only the ordinary examinations of normal and pathologic human tissues, but those of the lower animals, with special attention to methods applicable to invertebrates, embryologic study, etc. In the preface, attention is called to the newer methods which have required the bringing out of another edition while the index allows easy reference both by subjects and by names of authors. The processes for preparing tissues for examination are fully discussed, even to methods of killing animalculæ and preserving specimens prior to mounting. While replete with technical details, indicating thorough familiarity with the subject, a simple system of cross references avoids prolixity and repetition and general principles, as of the action of hardening and staining agents, are well discussed.

AN INTRODUCTION TO THE STUDY OF INFECTION AND IMMUNITY. Including Serum Therapy, Vaccine Therapy, Chemotherapy and Serum Diagnosis. By Charles E. Simon, M. D., Professor of Clinical Pathology and Experimental Medicine. College of Physicians and Surgeons, Baltimore. New (2d) edition, thoroughly revised. Octavo, 325 pages; illustrated. Cloth, \$3.25, net. Lea & Febiger, publishers, Philadelphia and New York, 1913.

In the issue of December, 1912, we reviewed the first edition of this work. The professional appreciation of Dr. Simon's book has necessitated the issue of a second edition, and, at the same time, given opportunity for the inclusion of some new matter along the lines of auto and normal serum therapy, chemotherapy of pneumococic infection and cancer, serum diagnosis of pregnancy, etc. We have elsewhere expressed the opinion that the method of presentation of the general subject of "Immunology"—a highly objectionable word for which a substitute should be secured before it becomes so firmly established as fibroma and appendicitis—is subject to criticism. This criticism applies no more to this book than to most other writings on the subject and consists in questioning the wisdom of carrying out in graphic detail, plausible but purely hypothetic explanations of the chemic reactions of immunity. It is true that diagrams serve to fix in the mind of the students, the technical terms used in explaining the process of immunity, largely because the terms themselves are metaphors. But is it well to establish a visual image which is probably no nearer the truth than the pictures of germs in Sunday supplements, and is it well to popularize hypothetic explanations which really have no demonstrated basis of literal truth? Is it not more in harmony with the pragmatism of medical science in general to teach observed facts and their practical application and to present hypotheses in the barest form possible?

It should be understood that this criticism applies to the present author only to the extent that he has followed precedent. In his technical descriptions, presentation of statistics of accuracy, and therapeutic and diagnostic advice, the author has ably summarized the state of our present knowledge and, we believe, has anticipated as nearly as is possible, the results of further development.

STUDIES CONCERNING GLYCOSURIA AND DIABETES, Frederick M. Allen, A. B., M. D., Pomona, Cali. Published by W. M. Leonard, Boston; 1179 pages; \$9.00.

This work embodies the results of three years' study and research in the laboratory of preventive medicine and hygiene of

Harvard, the author acknowledging a scholarship and other assistance toward the publication, as well as indebtedness for guidance and assistance in the scientific work. The long list of bibliographic references also indicates a disposition to give due credit to authorities consulted. As might be expected from one so candid in acknowledging the part of others, the work is essentially original and of a magnitude—referring not so much to the size of the volume as to the extent of the research implied—which clearly indicates that the author has not only devoted much time and thought to his task, but has borne an expense far beyond the amount of the scholarship, etc.

We assume, from the nature of the research and the time devoted to it in an institution, that the author is a comparatively young man. If so, he has shown a surprising maturity of judgment in weighing clinical evidence along with that derived from laboratory experiment; in following the various theories current, without marked bias; and in avoiding the natural tendency to bring theories and observations together to make a complete, satisfactory, one-sided explanation of the disease in question. The publishers state in their letter of transmittal, that they do not expect a large market for the book, but merely the interest of those who have devoted special study to the subject. We trust that their modest expectations will be exceeded. In spite of the fact that the book emanates from laboratory research and in spite of its magnitude, it is, in our judgment, just the work that the average practitioner of medicine should read, and should preserve for consultation. This is because so many theories are exploded, so many definite facts established and because the author has not “simplified” the subject of diabetes and the more or less related phenomena of glycæmia, glycuria, glycogen formation, etc., at the expense of the truth.

MINOR AND OPERATIVE SURGERY, INCLUDING BANDAGING. By Henry R. Wharton, M. D., Professor of Clinical Surgery in the Woman's Medical College, Philadelphia. New (eighth) edition, enlarged and thoroughly revised. 12mo. 700 pages, with 570 illustrations. Cloth, \$3.00 net. Lea & Febiger, Philadelphia and New York, 1913.

This book has become a standard, as indicated by the number of editions through which it has passed. The condensed literary style employed, the omission of unnecessary details and the use by the publishers of thin but opaque, non-reflecting, paper, give the impression, at first glance, of a rudimentary treatise. This impression is unjust, for the work is really very comprehensive and thorough, only the rarest conditions and details appropriate

to a special monograph or to a general treatise of cyclopædic nature, being omitted. The work is of high order from the didactic standpoint, and the author speaks with the experience of many years as a surgeon and a teacher.

A TREATISE ON THE DISEASES OF WOMEN. For Students and Practitioners. By Palmer Findley, B. S., M. D., Professor of Gynecology, College of Medicine, State University of Nebraska; Gynecologist to the Clarkson Memorial Hospital and Douglas County Hospital; Fellow of the American Gynecological Society; Fellow of the American Association of Obstetricians and Gynecologists; Fellow of the Chicago Gynecological Society. Octava, 954 pages, illustrated with 632 engravings in the text and 38 plates in colors and monochrome. Cloth, \$6.00, net. Lea & Febiger, Philadelphia and New York, 1913.

It gives us great pleasure to review this work of an acquaintance and quondam colleague. Few branches of medicine have produced the volume of literature that has arisen from gynæcology and, while this statement applies particularly to periodical writings, we have been impressed with the idea that books on gynæcology, generally speaking, have attained degrees of magnitude and of elaborateness of treatment, illustration, etc., rather beyond those of other branches. Hence, a new author entering this field has a rather more difficult task than the average, owing to the competitive standards established. While the present work is the outgrowth of "Diagnosis of Diseases of Women," published some years ago, and while Dr. Findley is well known as a gynæcologist, not only in and about Chicago where his earlier work was done, and in the wide field to which Omaha serves as a medical center, but also throughout the gynæcologic world, we need not apologize for speaking of him as a new author, so far as text books of the first magnitude are concerned. A more critical examination of this book shows that its merit does not lie solely in its size, comprehensiveness, nor in the elaborate illustrations. It is not a mere compilation, though, in a work of this kind, careful attention to the work of others than the author is a necessary function of authorship which has not been neglected in the present instance. What impresses us most in Dr. Findley's book is that he has brought to the reader not merely the experience and views of an operator but a careful attention to gynæcology in all its parts, yet without a hint of the old "puttering" office manœuvres. When he speaks of diagnosis, it is not the superficial consideration of history and symptoms and rudiments of palpation and percussion, preliminary to the use of the knife to make an equally superficial in-

spection of an exposed organ. On the contrary, he manifests personal familiarity with blood examinations, bacteriology and morbid histology, etc., as well as what the late H. F. Formad used so often to emphasize as the preliminary to diagnosis—definite, classified knowledge of what might and what might not be found in any given organ. The same thoroughness is displayed in regard to pre and post-operative treatment and to non-operative methods of therapeutics, including hygiene and dress. Yet, if we were to select any special points for illustrating the value of this book, they would be the definiteness with which pathology and etiology are discussed and the completeness of the descriptions and illustrations of anomalies. And this is only another way of saying that the author has laid his foundations broad and deep.

DISEASES OF CHILDREN. Henry Enos Tuley, M. D., Louisville, published by the C. V. Mosby Co., St. Louis, 684 pages, 106 engravings and three colored plates, second revised edition, cloth.

This book discusses, systematically, the peculiarities of infants and children, anatomic, physiologic, dietetic and therapeutics, pays great attention to details of nourishment, especially when it is necessary to rear the child artificially by milk, and then treats of the various diseases, according to their logical classification by specialties. The various formulæ for feeding and the methods of diagnosis by examination of fæces, urine, etc., are described in practical terms, well adapted to routine clinical use. We note some interesting points taken at random: Koplik's spots are reproduced by courtesy of Dr. John Zahorski, in color. This is believed by the publishers to be the first accurate reproduction of the lesion ever published. (By the way, without intending any discourtesy to Dr. Koplik, it should be remembered that the fact of characteristic lesions of the exanthemata occurring on mucous membranes has been taught as a routine by many lecturers, for many years, if not centuries and the same lesions have been clinically demonstrated in cognate courses for students. Some of these students have regularly used these lesions as diagnostic features in practice.) The convenient thermos bottle is mentioned as a possible cause of serious gastro-enteric disturbance, an examination showing 3400 bacteria per c.c. in the original certified milk and 1,400,000 in the milk in the thermos bottle after incubation over night. The occurrence of buccal gonorrhœa in the new born is noted. Functional albuminuria is discussed briefly but very sensibly, especially in emphasizing the fact that when there is a pathology, the condition is no longer functional—

a truism, of course, but one not always appreciated. The "comforter" is denounced as pernicious. Dilatation of the colon is well described and illustrated. The importance of collecting urine from infants is emphasized and Chapin's device is described, though, unfortunately not very lucidly, as it is said to consist of a "circular opening ending in a funnel," etc. We trust that the next edition will tell us what there is around this hole and how it is attached to the patient. "Cancarem oris" is, of course, a misprint. This is the only error of the kind observed. The author's style is excellent and his work, though thorough and scientific, is highly practical.

PROGRESSIVE MEDICINE, edited by Hobart A. Hare and Leighton F. Appleman, Philadelphia. Vol. 15, No. 3, Sept., 1913; Thorax, Wm. Ewart; Dermatology and Syphilis, Wm. S. Gottheil; Obstetrics, Edward P. Davis; Nervous System, Wm. G. Spiller. Published by Lea & Febiger, \$6.00 per annum, four numbers.

This work, while based on current medical literature, is not merely an index or series of abstracts but a critical review of the progress of medical science. Obviously, the extent and importance of what may be termed discoveries, vary considerably from issue to issue and depend somewhat upon the field of the individual editors. Even in such departments as dermatology and obstetrics, in which it would appear that nothing of especial note had been accomplished within the last few months, one is surprised at the value, to the practitioner, of the reviews of clinical experience and collective studies.

MANUAL OF VENEREAL DISEASES. Introduction by Sir Alfred Keogh, History, Statistics, etc., by C. H. Melville, R. A. M. C. Clinical Pathology and Bacteriology by Sir Wm. Leischman; Clinical Course and Treatment by C. E. Pollock, R. A. M. C.; second edition, revised and largely re-written by L. W. Harrison, R. A. M. C. Published by Henry Frowde and Hodder & Stoughton, Oxford University Press, American Branch, 35 W. 32d St., N. Y. City; 318 pages, illustrated; \$3.75.

While the authors are largely men of military experience, the work is equally applicable to ordinary civil practice. We note especially, descriptions of the demonstration of the spirochete, of the administration of salvarsan and of the treatment of gonorrhœa by electrically heated bougies. This is an excellent book, the only obstacle to its achieving wide popularity in this country, being the marked competition in this field.

HEADACHE, Its Varieties, Their Nature, Recognition and Treatment, by Dr. Siegmund Auerbach of Frankfurt, 3x a/M., translated by Ernest Playfair, M. B., M. R. C. P., published by Henry Frowde and Hodder & Stoughton, the Oxford University Press, American Branch, 35 W. 32d St., N. Y. City; 208 pages; \$1.50.

This is a very useful little monograph, discussing the various forms of headache with special reference to etiology, which, of course, is the main point in determining a rational therapy. We are rather surprised not to find a definite reference to indol intoxication since, even if this substance is not the actual cause of headache, indol in the fæces and indican in the urine, frequently mark the occurrence of headache, especially in our personal experience, in cases that would otherwise be attributed to eye strain. We can scarcely agree that headache is especially characteristic of hyperchlorhydria and certainly not with the statement that this form of headache can be differentiated from migraine by the occurrence of the latter at intervals from childhood or adolescence. We do not understand that the term migraine indicates any particular pathogenic process, or that the headache occasionally noted in connection with hyperchlorhydria may not be a migraine. Hyperchlorhydria is very commonly observed in adolescence and has been reported even in infancy, though, sometimes, on rather inadequate evidence. These criticisms do not in any way detract from the value of the work. In fact, we rather prefer books that are more or less polemic and that naturally arouse a spirit of contradiction in the reader and thus make him think for himself.

PRACTICAL BACTERIOLOGY, BLOOD WORK AND ANIMAL PARASITOLOGY, by E. R. Stitt, A. B., Ph. G., M. D., Medical Inspector U. S. Navy. P. Blakiston's Son & Co., Philadelphia; third edition; four plates, 106 illustrations (513 separate figures); 410 pages; \$1.50.

Even the fly leaves and inside of the covers are utilized for charts, but blank leaves are inserted for notes. The price of the book represents about one mill for each definite scientific fact presented. The author economizes words, but is generous with illustrations and ideas. He has the remarkable genius of presenting everything in its proper relations, but very briefly by the use of tables, and of following out associated lines of thought in the same way, or by terse notes. Like many of the rest of us, his motto seems to have been Completeness without Prolixity, but, unlike most of us, he has managed to live up to the motto.

Many writers give the impression of completeness until one attempts to follow their writing as a guide in practical work when it is discovered that the reader is brought up to the point at which he must consult some expert for some detail or further explanation. So far as we can judge from portions of this work in which we have had some experience, this book fulfills, as perfectly as any book can, the function of guiding the reader.

ABSTRACTS

ORTHOTOLIDIN AS A BLOOD TEST. R. F. Ruttan and R. H. M. Hardesty, *Can. Med. Jour.*, November, 1912, recommend this reagent as a substitute for benzidin. Solutions are comparatively stable, keeping 3-4 weeks. If small quantities of hæmoglobin are present, the reaction is feeble, but increases gradually on standing. (Note. The real trouble with all blood tests is that they all depend on oxidation, with hydrogen peroxid in some form, under the influence of hæmoglobin acting as an oxidase. In stomach contents, fæces, etc., there is always the possibility of the presence of other oxidases than hæmoglobin, or, especially with guaiac, the color change may occur after some delay without the presence of hæmoglobin. Some authors go so far as to claim that a tube in which the hæmoglobin reaction has once occurred, will subsequently give the reaction, however carefully it is washed. Others insist that the tube must be perfectly dry when used, although water is obviously introduced in the test. It is interesting to note that Sir A. Conan Doyle makes one of his medical heroes discover a positive test for hæmoglobin. A good practical rule is to heat laboratory material in order to kill extraneous ferments, to cool, so as to prevent the hastening of the non-oxidase color change, and to pay no attention to a test that does not react within a minute and with reasonable positiveness. If this rule is followed, stomach contents, fæces and urine will usually give a negative blood test, a fact that reassures us as to the clinical reliability of a positive test which occurs without exception, so far as we have observed, if there is either macroscopic or microscopic evidence of blood; as well as faintly in cases in which blood is not thus readily detected. On the whole, we have found the phenolphthalin test most convenient, but it is a good plan to check it by the guaiac test.)

PUBLIC PLAY GROUNDS. According to the *Survey*, Birmingham, Ala., is the last of the cities of the U. S. of over 100,000 to provide public play grounds. We are grateful, personally, to have lived when there were plenty of vacant lots and large yards in which to play ball, hunt bears, bury dead cats and build bon-

fires, even though there were always some impatient to put them out before the potatoes were roasted. and we are doubly grateful that our play was without modern contrivances and not personally conducted. But times change, and now that we must have public play grounds, let us have enough of them at convenient intervals to do away with the necessity of making the streets play grounds also, playing in the street costs too many lives and produces too much nerve strain of conscientious drivers.



Fig. 1.—Sporotrichosis. Scars of old lesions on both legs. Fresh lesion developing on inner aspect of right thigh just above knee.

SPOROTRICHOSIS, B. W. Rhamy and W. W. Carey, Fort Wayne. *Jour. of Ind. State Med. Assn.*, June, 1913. Blastomycosis or oidiomycosis was first described as a systemic infection by Gil-

christ in 1894. About 200 cases have been reported in the world's literature. The first author has seen two previous cases, diagnosed clinically. The present patient was a male, aged 27, who gave a varied but not very significant history. His first boil



Fig. 2.—Sporotrichosis. Showing open lesions on calf with several old scars just above ankle. (Dark color of skin due to shadow.)



Fig. 3.—Sporotrichosis. Healed lesions on right thigh and buttock.

or abscess occurred in 1904 and similar lesions had occurred intermittently ever since. Cultures were made by Henry Newton Cole of Cleveland, who had seen about a dozen cases in Paris and Berne. Autogenic vaccines have been used on the case since September, 1912, apparently favoring healing but not pre-

venting the development of subsequent abscesses, the patient not yet being well. Cuts supplied by courtesy of authors and editor.

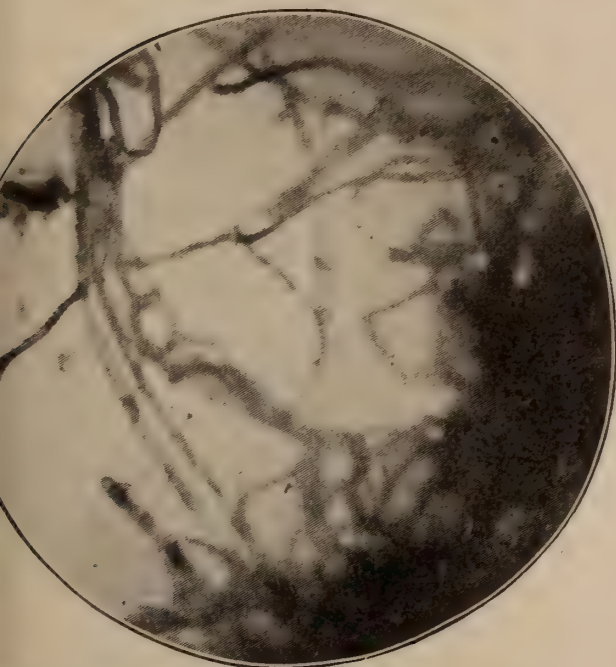


Fig. 4.—Sporotrichosis. 14 day old culture in glucose bouillon; 1-12 oil immersion.

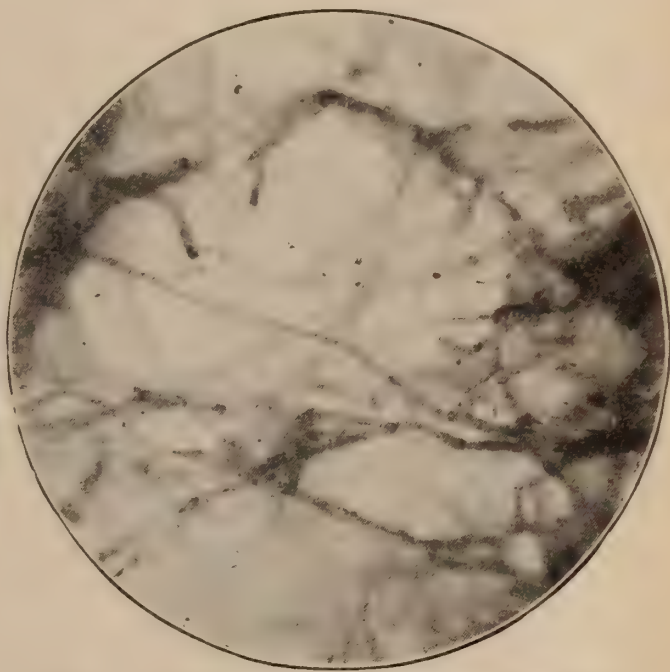


Fig. 5.—Sporotrichosis. 30 day old culture in plain bouillon; 1-12 oil immersion.

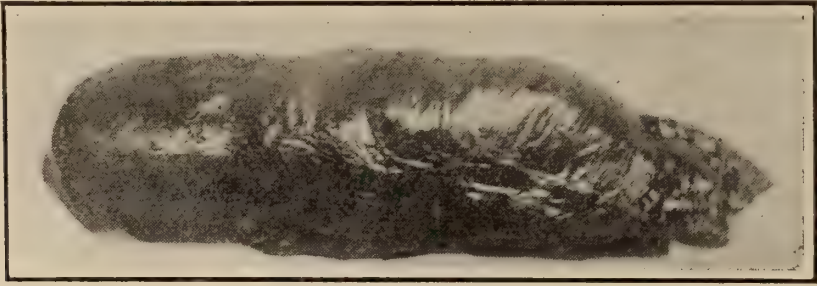
DIETETIC REGIME IN CARDIOVASCULAR AFFECTIONS. H. Vaquez, Paris, *Arch. des Mal. du Coeur, des Vaisseaux, et du Sang*, 1913, VI, 225. Vaquez contributes a comprehensive paper on diet in diseases of the circulatory apparatus. Concerning arteriosclerosis he points out that there exists in patients before the period of marked general atherosclerosis or renal sclerosis a period during which the only demonstrable change in the body is an abnormal elevation of arterial pressure. This is the period to which Huchard has given the name "presclerosis." He has seen a number of large eaters, who may or may not have partaken of meat immoderately, in whom the arterial pressure did not surpass the normal figures, and a number of other subjects who presented arterial hypertension whose dietary habits could give rise to no criticism. On the contrary, he has often found among the immoderate users of alcoholic drinks an arterial hypertension which could be explained by no other cause. He attaches great importance to the studies of Aubertin, which show that the repeated ingestion of alcohol produces a hyperfunction of the suprarenal capsules in animals, absolutely parallel to that pointed out by Bernard and Bigert in lead poisoning. He does not mean to imply that the habitual and immoderate use of alcohol is the only cause of arterial hypertension; but he insists that arterial hypertension is one of the pathologic conditions which

may follow this habit. Consequently it is necessary to regulate strictly the use of alcohol in all subjects who present arterial hypertension, particularly when the increased pressure can be explained in no other way. This is the only restriction he has to propose upon the diet of patients with hypertension. All other assertions about the quantity of foods absorbed, upon their nature, upon their greater or less content of salt have no acceptable clinical or experimental basis. There is a form of vascular sclerosis in which the changes attack only localized parts of the great vessels with the production of atheroma, usually not altering the small nutrient systems of the tissues or organs, and not accompanied by abnormal elevation of arterial pressure. This arteriosclerosis develops very gradually, and, as a rule, is observed only at an advanced age. In this form of arteriosclerosis no author has succeeded in establishing the noxious role of any food. In the dietary of these cases he advises the reduction in a moderate degree of those substances which we know may become harmful at a later period in the development of the disease: meals, which are small in amount, so as to prevent overfilling of the stomach; the moderate use of meat, red or white, as desired; less reduction of other foods except that their lime content should not be too high; abstinence from foods containing too great a proportion of salt with a recommendation to lessen the use of salt in the habitual dietary; the possibility of using light wines or beer, provided that the quantity of drink taken at each meal is moderate and to complete the quantity of fluid necessary in twenty-four hours by water taken between meals. If the disease is well advanced or if insufficiencies of the various organs begin to appear, a strict modification of diet is necessary. For kidney or liver insufficiency milk is necessary, without paying any attention to its high lime content. The amount of milk ordered will depend upon the gravity of the organic disorder. The complete suppression of meat should be prescribed only when there are signs of cardiorenal insufficiency. In the periods of improvement a small quantity of meat taken with the milk will prevent excessive emaciation. The legumes ought to form a large part of the diet of such a patient. The use of salt should be reduced as much as possible and fluids should be restricted to avoid the ingestion of too great amounts at one time. In cases of valvular disease of the heart one should not subject the patient to a too vigorous diet for fear of making existence insupportable. The patients should be allowed a liberal diet; but the amount taken at each meal should be small, and food which is difficult of digestion should be excluded, fats should be limited, the quantity of fluid taken at each meal ought to be limited, and the patients should give up alcoholic drinks and be very moderate

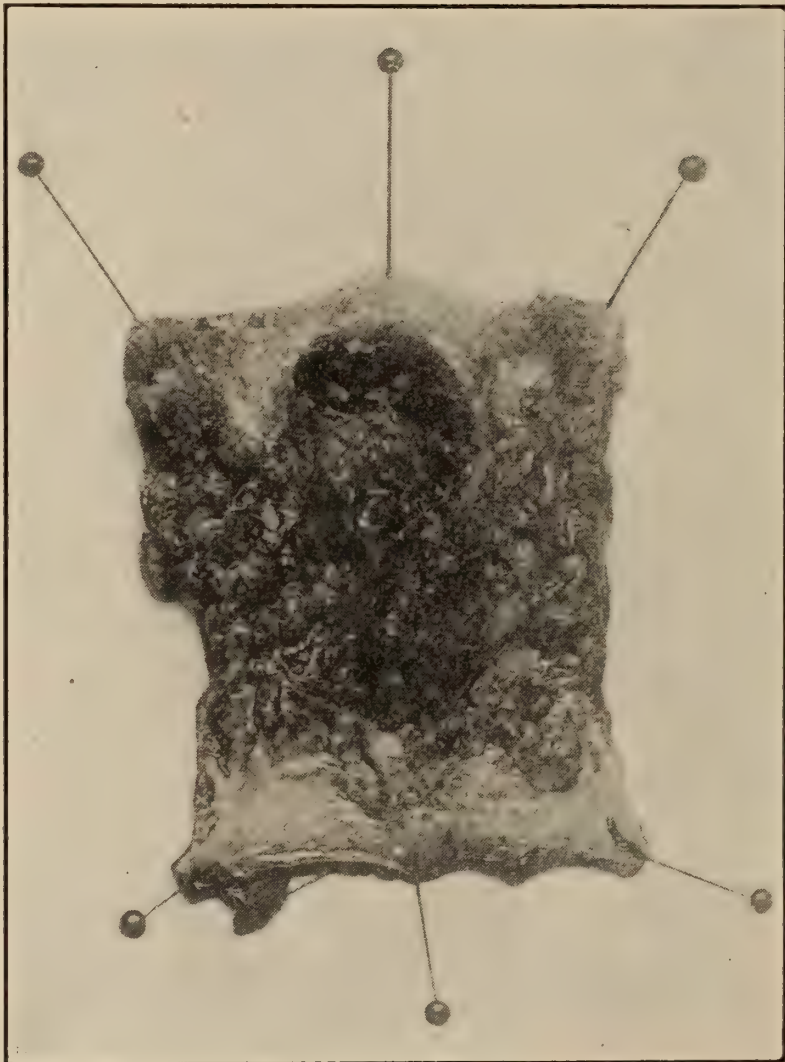
in the use of tea and coffee. When decompensation begins, the dietary measures should be active. The three elements of diet that have been recognized as harmful in cardiac cases are salt, albuminoid substances, and fluids. In mild cases of decompensation salt should be excluded from the diet for two days every week or every two weeks. During the remaining part of the period the salt in the diet should not exceed two grams per day. The latter content is easily attained in a diet containing one liter of milk, a little meat, legumes, fruit and bread made without salt. In the more severe cases the exclusion of salt should be persisted in for one or two weeks at a time. As the symptoms improve salt may be added to the diet; but never more than three or four grams per day. It is of no benefit to restrict the use of meat absolutely in cardiac cases that are able to eliminate freely, such as well compensated valvular lesions and hypertension cases without renal involvement. However, as it is difficult to know exactly at what moment this elimination will become insufficient it is best to recommend that the dietary shall not contain too much meat. In cases of cardiac insufficiency without organic lesions of the kidneys, it is wise to reduce the total quantity of fluid and to have the fluid taken frequently in small doses. One will prevent in this way overloading the bloodvessels. In ambulant patients the fluid may be restricted in the day time but allowed freely in the evening, particularly when the patient is about to go to bed.

ARNETH BLOOD COUNT IN TUBERCULOSIS. R. S. Cummings of Los Angeles, *Calif. State Jour. of Med.*, July, 1913. In 1896, A. M. Holmes noted a tendency to a disproportionate number of leucocytes containing few nuclei, in tuberculosis. In 1904, Arneth established the following normal standards: 1-nucleus in neutrophiles, 5 per cent.; 2-5 nuclei, respectively, 35 per cent, 41 per cent., 17 per cent., 2 per cent. In tuberculosis, according to the severity of infection, there was a tendency toward disproportionate percentages of cells with few nuclei. For example, 12 per cent., 48 per cent., 30 per cent., 1 per cent., 0 per cent., according as the nuclei numbered 1, 2, 3, 4 and 5 in a cell. Bushnell and Treuholtz in 1908, divided the cells mesially into 1 and 2-nucleated and half of the 3-nucleated, and half the 3-nucleated, 4 and 5-nucleated. Normally 67 per cent. of the neutrophiles should fall in the lower group, while in tuberculosis, 85-90 per cent. would contain few-nucleated cells. In a total of 80 cases on whom 206 blood counts were made, in normal individuals (22 cases, 36 counts) the index ranged 43-66, average 55; in second stage patients (54 cases, 124 counts) 33-81.5, average 60; in third stage patients (26 cases, 82 counts) 52.5-92, average 73.

THORACIC ESOPHAGECTOMY. J. Henry Barbat, San Francisco, *Calif. State Jour. of Med.*, June, 1913. (Illustrations reproduced by courtesy of author and editor.) The operation for



cancer has been performed about fifty times, with a 100 per cent. mortality. Shock, infection, pneumothorax, interference with the pneumogastric, are the reasons assigned. The pleura and the thoracic organs are less tolerant of handling and of infection



than the peritoneum and abdominal organs ; moreover, the operation as done at present occupies two or three hours at the least. The author's case survived fifty-two hours, apparently from pneumothorax, a hissing sound being heard with respiration and there being air hunger and cyanosis.

HEREDITY AND ACCOMPLISHMENT. Frederick Adams Woods, *Pop. Sci. Monthly*, May, 1913, analyses the heredity of the forty-six Americans honored by tablets in the Hall of Fame. Twenty-six had two or more relatives sufficiently prominent to be listed in biographic dictionaries. He holds that the ordinary run of mortals, composing 99 per cent. of the race produce no more men of the highest rank than the 1 per cent. who constitute the cream of the cream, eugenically and with special reference to distinguished connections. Such statements are rank heresy from the standpoint of a people which believes that all men are created free and equal. But, the medical profession is accustomed to seeking the truth, irrespective of theory. There is something to be said on the other side of the matter. A great many very ordinary persons have distinguished, widely separated ancestry. We know two families descended from the Princess Mary, daughter of Henry VII, immortalized in "When Knighthood Was in Flower," and have another friend tracing back to Henry VII in another line. None of these require us to stand in their presence. The chances are that instead of 99 per cent. of the race (at least in America) having no distinguished connection, there are only 20 per cent. lacking in this respect, and perhaps many of these lack definite knowledge of their ancestry rather than the ancestors themselves. What has impressed us strongly is the tremendous saving of time and opportunity for advancement which even a slight amount of wealth or family influence afford the young man, enabling him to accomplish work, affording him means of pushing himself, and giving him openings, which his less fortunate rival cannot, under ordinary circumstances, secure till he has reached a time of life when he feels that it is too late to start on his real, potential career. On the other hand, it must be conceded that men like Lincoln and Grant, who apparently illustrate the American theory of making good on personal merit, usually show distinguished heredity.

In all fairness, there is also another side to the question. A little girl in school, being asked to what circumstance Columbus mainly owed his reputation, replied that it was because none had discovered America before him. While, in the light of the higher criticism of history, it must be admitted that America had been discovered ten or a dozen times previously, her reply was, for practical purposes, correct. There is no longer opportunity for Columbuses, Cabots, Rolandos and Sylviuses, nor Pearys and Vaters. To confine ourselves to our own profession, most of the specific germs have been discovered. Many a man devotes time and skill to a work that turns out negatively, or, at most, throws some sidelight on medical science. Such research denotes as great mental ability and patience as that of the man whose

work turns out successfully. They are like peace presidents and generals who never have the chance to rise to historic greatness.

After all, the man who does his work faithfully, who achieves his own best ideals, who serves his fellows well, represents, in the average, something of more value to the race than the man who gets a tablet in the Hall of Fame.

ON THE PROGNOSTIC SIGNIFICANCE OF SECONDARY POLYCYTHEMIA IN CARDIOPULMONARY AFFECTIONS. F. Parkes Weber, London, *Arch. des Mal. du Coeur, des Vaisseaux, et du Sang.*, 1913, VI, 266. The frequent occurrence of polycythemia in congenital heart disease which is accompanied by cyanosis is well known. Few such patients reach adult age. In such patients, however, Weber considers the increased number of red cells to be a compensatory phenomenon; the bone marrow endeavoring to remedy an imperfect oxygenation of the blood by an increased number of erythrocytes. It is possible to find a polycythemia almost as well marked as that seen in congenital cardiac affections in certain patients who have reached the last stages of pulmonary emphysema, chronic bronchitis, asthma, bilateral pleural adhesions, chronic interstitial pneumonia and pulmonary sclerosis of tuberculosis origin. In such cases the occurrence of cyanosis and a pronounced degree of polycythemia is a prognostic sign of considerable gravity. Eleven cases are reported.

LOCAL ANAESTHETIC SOLUTION. F. Chavanne recommends the following:

Phenol	2.
Menthol	2.
Quinine hydrochlor	1.5
Adrenalin	0.005

This is applied on a tampon, as to the throat. The tissues shrink and become white and insensitive. Even deep cauterization can be done without pain.

DISTAL APPENDICITIS. Boekel, *La Rif. Med.*, November 12, 1912, describes what he considers a new form of appendicitis, in which the tip becomes adherent to the mesentery and discharges between its folds, or between loops of intestine, forming a dense mass or masses consisting of pockets of pus. In one case he saved the patient by resecting 80 c.m. of ilium and 90 c.m. of cæcum and ascending colon. (Note. We are inclined to believe that this type has been recognized by American surgeons and that the extraordinary length of large intestine mentioned represents a misprint.)

GASTROTOMY WITH REMOVAL OF 1149 FOREIGN BODIES. A. C. Matthews of the Napa State Hospital, California, *Calif. State Jour. of Med.*, January, 1913, reports a case in an insane man, aged 31. The foreign bodies included 180 hair pins, 14 closed and 21 broken safety pins, 23 buttons, 13 nails, 425 broken hair pins and pieces of wire, 280 small pins, the total weight being 18 ounces. Vanderwilt and Mills, *Jour. A. M. A.*, January 21, 1911, report a similar case with 1446 foreign bodies removed at necropsy, and refer to a case of Bell of Montreal, in which a hair ball formed a complete cast of the stomach and duodenum.

BONE IN HUMAN PENIS. Arpad G. Gerster and F. S. Mandlebaum (sic) of New York, *Annals of Surgery*, June, 1913, report a case in a man aged 49, apparently due to pressure of straight front corset upon the dorsum. The specimen measured 3.5x1.7 c.m. and 2-3 m.m. in thickness. This is the sixteenth case in literature. Morphologic relation to the normal bone of certain animals is denied, the formation being purely pathologic and due to mechanic irritation and various disease lesions. (Note. We have no sympathy with the patient, although, in the kind of a man who would wear a corset, the lesion may be considered conservative and not retributive.)

COCKROACH A POSSIBLE CONVEYOR OF CANCER. The *Lancet*, February 1, 1913, refers to a previous communication by W. Melville-Davison claiming that cancer is due to an alga which is found in the intestine of the cockroach and elsewhere. Febiger of Copenhagen claims that an intestinal worm of the rat passes its larval stage in the intestine of the cockroach and that cancer in the rat is due to his eating the cockroach. We are inclined to doubt any specific convection of cancer by the cockroach, but there is no question but that various infections may be spread adventitiously by this insect which swarms from plumbing, floors and garbage over tooth brushes, towels and food.

GONOCOCCIC URETHRITIS IN BOY OF 17 MONTHS. Archibald Smith and C. S. McKee, *Brit. Med. Jour.*, April 26, 1913, report a case promptly cured by colloid silver. The ætiologic factor was a nurse.

CONGENITAL DEFECTS. J. H. Wood, *Med. World*, August, 1913, reports a case of anal atresia with discharge of fæces through vagina. The girl, observed since her birth in 1886, has never menstruated, but has regular molimina. He also reports a case of tough hymen. After resecting it, he could find neither uterus nor ovaries. The girl had never shown any indication of

menstruating. She has since married and is apparently functionally normal, except for sterility.

SURGERY IN THE SEVENTIES: A RETROSPECT. Evan O'Neill Kane, M. D., Kane, Pa., *International Journal of Surgery*, Aug. 1913. In the winter of 1876 I was one of a party who traveled through Northern Mexico and were forced to accompany some of the outlying bands of bandits—"Revolutionists" as they called themselves—of the Leardo Revolt, the uncle of the present Diaz being then in the field.

The courtyard of an old cassa was utilized as a hospital and beds of straw were made on the broad stone benches. A rough board operating table was knocked together, and water in earthen jars drawn from the muddy lagoon nearby. Chloroform from our scanty supply was used sparingly, and three or four limp sponges employed for swabbing. My brother Elisha and I were first assistants, and I recollect that we were neither asked to wash our hands nor did we think of doing so until we were through. No sterilization of any sort was suggested, the water not even being boiled. The amputation stumps were dressed in old rags saturated with blood, a blood clot covering being thought very excellent.

I recollect that a useful member was made of the arm of a captain of cavalry whose shoulder we resected, notwithstanding that he had lain out in the sun until the shattered fragments of the joint became necrotic and covered with maggots (these were driven out with turpentine). He came later to express his gratitude. Most of them cursed us loudly for their dismemberment and the brother of one of them tried to shoot us.

Dr. Freeman performed a strabismus operation on a young Mexican in consideration of a pair of riding boots. No anesthetic was given; the boy sitting upon a low stool, his head pinioned between the doctor's knees. The hook, knife and scissors were held by the doctor in his mouth to be handy for use. The results were perfect, and there was not the least infection despite the surgeon's saliva and the fact that no dressings were employed and that desert ophthalmia was prevalent.

On returning from Mexico I became Dr. Freeman's student, attended lectures and clinics with him at the old Buffalo University Medical School, and assisted him in his country surgical practice, which was very extensive, there not being any local hospitals then or the same facilities for procuring city consultants we now have. In the clinics in Buffalo there was a crude stability to the surgical work, which, though a technic of any kind may be said to have been wanting, rendered excellent results.

When assisting my preceptor in his house to house operating we were still untrammelled by the demands of the antiseptic and aseptic germ theorists that were soon to captivate the profession.

On entering a house to prepare for an operation no thought was given to cleaning the room, to say nothing of sterilization. The kitchen was usually chosen, and over its table an old quilt was thrown. Hot and cold water were freely employed to clean sponges and to wash away blood. Both were mixed to an agreeable temperature, but the water was not heated to a sterilizing point, being used just as it was drawn from the well or spring. No preparation was given the instruments before placing them upon a chair, bench, or table beside the operator.

PEPTIDE-SPLITTING FERMENT OF CARCINOMATOUS STOMACH
A. Graham Bryce, M. D., Pendlebury, Eng., *Med Chron.*, July, 1913. This article is an extensive review of literature, checked by personal investigation. Preformed tryptophan in the stomach contents (Erdmann-Winternitz test) is rather characteristic of cancer but Neuerbauer and Fischer regard it as due to regurgitation from the intestine. It is not at present regarded as of great diagnostic value and was not so stated by its discoverers. Neuerbauer and Fischer's modification of the test by letting the gastric contents act upon glycyl-tryptophan is regarded as more definitely diagnostic, but a positive reaction has been obtained in only 67.7 per cent. of demonstrated cases of cancer and some of these have not been positive except after repeated trials. (Note. It should be remembered that a reaction in 50 per cent. of cases has a zero value.) There are also interferences to be considered. Many bacteria, including the colon and typhoid bacillus and *B. proteus*, split peptides, although by filtering the matter investigated and adding toluol, this action can be largely eliminated. Free HCl to the amount of 90 degrees decinormal inhibits the action of the peptide-splitting ferment of carcinoma, but this degree of acidity is rarely found and practically never in cancer cases. Trypsin, regurgitated from the intestine (or formed in the stomach?) as well as blood may also cause a peptide splitting.

(Note. While in an academic sense and as indicating potential practical developments, tests that are merely characteristic of a given condition have a considerable value, for practical diagnostic purposes, it is better not to use such a test at all, unless both patient and physician can maintain an absolutely judicial attitude. Unfortunately, all kinds of laboratory tests are given a degree of reliance superior to that given ordinary clinical diagnostic methods, and, often, without the warrant of facts.)

ELECTRIC TRANSPORTATION OF MICROBES. J. Comandon, *Arch. d'Elect. Med.*, July, 1913. Living microscopic objects, such as bacteria, blood corpuscles and protozoa, suspended in organic liquids, have an electric charge. By means of platinum plates set into slides, a galvanic current is passed through these suspensions, with resulting characteristic movements, which have been reproduced by micro-cinemetagraphic methods. Plates reproducing the cinemetograph pictures are shown, of the typhoid bacillus moving toward the cathode; of the trypanosomes of nagana in the blood of a mouse, moving toward the anode; of paramecies moving toward the cathode, etc. These movements depend upon the relations of the charges of the microbes and of the liquid of suspension and are quite characteristic, but not sufficiently so in all strains for diagnostic purposes. Cultures of the same species, made in the same manner, always show the same direction of movement under the galvanic current. The development of this method is exceedingly interesting and may prove to possess practical diagnostic value.

OVARIAN SEMINOMA. P. Masson, *Bull. et Mem. de la Soc. Anat. de Paris*, November, 1912. Although long mistaken for round cell sarcoma, this tumor is identical with the structure of the testis and cannot be distinguished from testicular seminoma. The tumor is usually massive, yellowish white or rose white, the hardness depending on the amount of connective tissue. The author showed five cases of ovarian and two of testicular seminoma.

INTRATHORACIC INJECTION OF IODINE IN TUBERCULOSIS. D'Amico, *Lancet*, March 29, 1913, advises the following solution: Iodoform 1., Camphor 2, Guaiacol 5, Essence of peppermint 2., Olive oil 20. 1 c.c. up to 4-6 c.c. for cavities, is injected through a long, slender, plantinoid needle into the pulmonary lesion, as nearly as it can be determined. 10 injections usually suffice for children, 20-60 for adults. Improvement amounting to cure is claimed, but ordinary hygienic treatment was also carried out. The cardiac area and large blood vessels should be avoided. The injections are made usually in the second to the sixth intercostal spaces, the apices being reached from behind, above the scapula. (Note. A similar treatment was in vogue about twenty-five years ago. We happened to witness an injection which resulted in fatal pneumothorax, the needle having accidentally punctured an emphysematous portion of lung so friable that the tissues did not close after it. While one should not be unduly influenced by a single unfortunate result, an experience of this sort naturally prejudiced us in favor of medication through the air passages, blood and lymphatics.)

ASTHMA DUE TO MALTESE CATS. H. C. Wood, Jr., of Philadelphia, *Monthly Cyc. and Med. Bull.*, June, 1913, cites a case. The patient, a girl of 19, was subject to asthmatic attacks from other cause, but always had an attack precipitated by the presence of maltese, though not of other cats.

SCARLET RED IN GASTRIC AND DUODENAL ULCER. Julius Friedenwald and T. F. Letiz of Baltimore, *Monthly Cyc. and Med. Bull.*, June, 1913, report 37 cases, either ambulant or previously treated in vain by the Leube rest or Lenhartz dietetic method, cured or markedly benefited. The dosage was about 3-4 grams a day for 3-8 weeks, the drug being best administered in half gram konseals.

BACILLUS PERTUSSIS of Bordet and Gengou has been subjected to the demands of Koch's laws by Mallory and Horner and apparently may be accepted as the specific cause. *Jour. of Med. Research*, Vol. 27, page 391, 1913. The organisms are massed together and interfere with the action of the cilia of the trachea and bronchi.

INDICANURIAX. Gustav Baar, Portland, Ore., *Northwest Med.*, July, 1913. Constipated cases showed a positive test 736 times, negative 820 times, those without constipation, positive 2600 times, negative 2503 times. There were 2092 cases altogether. There seemed to be no necessary coincidence with intestinal indol. (Note. There is probably more or less indol in all fæces, but the test is not very delicate, not nearly so delicate as that for indican in the urine. Moreover, absorption need not necessarily correspond to absorption.) Indican of metabolic origin is regarded as improbable. Indican due to decomposition of retained pus, foetus, gangrenous matter, etc., is considered rare. Exclusive lacto-farinaceous diet, vegetable diet or sour milk or lacto-bacillin did not influence the indican. (Note. In a personal experience we have found, usually, a moderate though not very rapid response to such theoretic indications. Still, it is not uncommon to find proteid decomposition coincident with marked acid fermentation and gas production in the intestine.) The author speaks of the plausible argument for an action of hyperchlorhydria to prevent or cause indicanuria, and, in an experience with 276 cases with an acidity (total?) about 70 degrees, found a positive test 560 times and negative 550 times, which corresponds with our own experience and probably with that of everyone who "experiments, not thinks." The article contains many other interesting details.

A LITANY FOR DOCTORS. From too few patients, and from too many patients; from hypodermic syringes that won't work; from book agents; from consultants who steal our cases; from rheumatism; from collecting agencies; from stupid nurses; from people who are going to pay for visit next Saturday night; from tire troubles and Christian Scientists—good Lord, deliver us.

From the people who begin their letters to us, "Dear Sir"; from static machines in damp weather; from boils on the back of the neck; from debts and detail men; from anti-vivisectionists; from nurses who know more than we do; from "cures" for tuberculosis; from "text-book" papers; from incurable cases of imaginary disease; from Bernard McFaddists; from tag days; from new methods for administering salvarsan; from "automobile" fractures; from infant foods; from anti-vaccinationists; from nature curers; from Immanuel Movers and the *treponema pallida*—good Lord, deliver us.

From the people who call us "Doc"; from malpractice; suits and dead beats; from gossips; from over-grateful female patients; from pretty nurses and jealous wives; from the doctor who succeeds us in a case; from the "wrong number" mistake; from consultations by telephone; from the counter-prescribing druggist; from lawyers and dentists; from the man who wants us to help his lady friend out of trouble; from calls at 2 A. M.; from shoulder presentations; from optometrists and engine trouble; from the man who "cannot add anything to the paper, but merely wants to compliment the essayist"; from meta-amidopenylparamethoxychinolin; from New Thoughts and mining stocks; from breaking catgut; from neurasthenics; from "the sponge we left behind us"; and from the dangers of tricresol 0.4 per cent.—good Lord, deliver us. Amen.—R. R. in *Lancet-Clinic*.

CASE OF PREMATURE BURIAL. P. A. Nightingale, M. D., District Surgeon of Victoria, S. Rhodesia, *Transvaal Med. Jour.*, June, 1913, reports an interesting case of recrudescence of an antient aboriginal custom of walling a decrepit person in a cave. A trooper of police found the old man, covered with sores and maggots, in a dying and delirious condition, buried in the regular tribal charnel house. The patient recovered. During the trial of the tribesmen who had buried him alive, it was learned that the natives believed that the spirits of phthisis, leprosy and epilepsy passed into the person who first touched the corpse of one dead of these diseases, and that, therefore, the custom was to bury such patients before death to prevent infection.

URTICARIA TREATED BY ADRENALIN. Swann of New York, *Boston M. and S. Jour.*, May 1, 1913, treated eight cases of urticaria with hypodermics of adrenalin solution, standardized at half a milligram for an adult, repeated after ten minutes. In all cases the lesions disappeared after the second dose, even within a few minutes. He intimates that the cure was not permanent in all, but had no opportunity for learning if repeated injections would effect an actual cure.

VACCINATION. Wm. Hanna, M. A., M. D., D. P. H., Asst. Medical Officer of Liverpool, in a recent book entitled *Studies in Small Pox and Vaccination*, reports 2280 cases of small pox. The aggregate mortality was 161, about $7\frac{1}{2}$ per cent. The mortality of 220 that had never been vaccinated ranged from 25 to 40 per cent. of 943 which had been vaccinated only in infancy, it was 3 per cent. No cases occurred in vaccinated children under three years of age, and no deaths in vaccinated persons under 20.

OVARIAN CANCER IN CHILD OF EIGHT. Etienne and Aimes, *La Presse Med.*, May 14, 1913. Uterine hæmorrhage and a large, painless, mobile tumor were the principal symptoms. Mistologic examination showed epithelioma. The immediate progress was favorable but fears are entertained of recedive.

INFLUENCE OF APPENDICITIS ON HEPATIC INSUFFICIENCY. M. J. Duvergey, *Paris Med.*, May 10, 1913. In grave infections there is diminished excretion of urea, followed by excess during convalescence; in subacute cases, there is a constant excess; in chronic cases no modification. Alimentary glycosuria and urobilinuria are noted in appendicitis of marked degree. The association of diminished urea, alimentary glycosuria and urobilinuria is a grave omen. If the curve of urea elimination is followed, one has a check on the course of the disease.

CHRONIC INFLAMMATORY STENOSIS OF THE CARDIAC REGION OF THE OESOPHAGUS. G. Liebault, *Rev. Hebdom. de Laryn.*, May 10, 1913. These occur usually in adults from trivial causes, affecting the œsophagus at its normal retraction as it passes through the diaphragm. The interaction of an erosion and the resulting spasm are compared to the phenomena of anal fissure. The diagnosis, especially to exclude neoplasms, etc., need not be discussed here. The prognosis is good—which scarcely agrees with the recommendation of a preliminary gastrotomy.

ISLANDS OF LANGERHANS. D. P. Grimes, *Arch. des Sciences Biol.*, No. 1, 1912, perpetrates a gross heterodoxy, claiming that the insulæ are not morphologically distinct from the pancreatic lobules, but represent identical epithelial structures, either in a special functional condition or even undergoing retrograde metamorphosis. He even questions the existence of an internal secretion and asserts that if it does exist, it is formed both by the insulæ and the ordinary lobules. Without accepting this heresy, it is only fair to note that it would explain the marked failure of therapy of diabetes based on the accepted theory. Moreover, generally speaking, a long dispute between clinical observation and scientific theory has usually resulted in corroboration of the former, certain contributory factors having been overlooked in the preliminary scientific demonstrations. We cannot refrain from prophesying that much light will be shed on the pathogeny of diabetes when the long accepted physiology of the hepatic function of glycogenesis is elaborated from the pathologic side.

COLLOID COPPER IN CANCER. Leo Loev, C. B., McClurg and W. O. Sweek, *Interstate Med. Jour.*, December, 1912 and January, 1913, report cases treated by daily intravenous injections of 300-400 c.c. of solution. Symptomatic relief and even retrogression were noted. We have, in two inoperable cases, used organic silver salts by high-frequency cataphoresis, with apparent benefit, though one patient died from hepatic metastases after three years of fair general health, and the other was practically moribund and died in a few weeks. In this latter case the tumor broke down and discharged like an abscess, corresponding to the findings of the authors quoted that secretion was increased from exposed cancers.

RENAL LITHIASIS. J. Bentley Squire, M. D., *Am. Jou. Surg.*, April, 1913. He divides calculi into primary and secondary according to probability of origin. The term secondary applied to those which can be definitely proven to be dependent for their causation upon bacterial invasion of the kidney. The causation of primary stones is still a matter of controversy and he cites a number of theories, but says it must be left to the experimental laboratory for final solution.

In regard to early diagnosis, attention in many cases is first directed to urinary trouble by albumin being found in course of insurance examination for life policy. The classic symptoms-hematuria, renal colic and fixed pain being so often absent as to be negligible, so more minor symptoms must first attract to possible seat of disease.

He emphasizes the necessity of making radiographs of both kidneys, citing a number of cases where symptoms all pointed to one kidney where radiograph showed calculi in both kidneys. In operating upon these cases the rule is to operate upon the less diseased kidney first and the other at a subsequent date. The newer renal function tests make it comparatively simple to arrive at a definite conclusion as to which kidney is the less damaged, also, it is better to rely upon this rather than the size and number of calculi as shown in radiograph.

When operating for the removal of very small calculi he overcomes the difficulty of locating the stones by means of a small portable X-ray apparatus with right-angled vision fluoroscope with which he examines the kidney after it has been exposed and brought out on the loin. This requires but a moment, and in doubtful cases is of the greatest value.

PARATYPHOID FEVER. OUTBREAK IN PRIVATE SURGICAL HOSPITAL IN ROANOKE. L. L. Lumsden, Surgeon, U. S. P. H. Service, A. W. Freeman, Asst. State Health Commissioner of Virginia, and W. B. Foster, Health Officer of Roanoke, *Pub. Health Reports*, May 30, 1913. The hospital staff consisted in five physicians, sixteen nurses and eleven servants (32) and thirty-eight patients. Sixteen cases occurred, the first, January 9, in a colored boy employed as helper in the kitchen. The Widal test was negative, but there was clumping with a culture of paratyphoid B. bacilli. The other cases occurred from February 14 to March 26. The incubation period, so far as could be judged from duration of stay in the hospital was from 5-11 days, high fever developed suddenly, reached a maximum of 104 or 105 in two or three days and gradually declined to normal in five days to three weeks, the symptoms being mild, except in one dysenteric case. Rose spots were noted in most of the cases. All but two cases occurred in patients, admitted for operation. There was no epidemic in the town and the community of water, milk and other food supplies, relative lack of insects, etc., left the exact means of conveyance in doubt, though probably it was due to indirect conveyance in a variety of ways. (Note—Aside from the general need of recognition of paratyphoid and of sharply discriminating from true typhoid, "outbreaks" of this nature suggest the need of a technical term as neither epidemic nor endemic is appropriate.)

SPOROTRICHOSIS IN IOWA. The first case recorded was reported by Albert and Grover, the second editorially, in the *Iowa Med. Jour.*, March and July, 1913, respectively.

WHY THE PHYSIOLOGIC SALT SOLUTION? Hugh H. Trout, last December, read a paper before the Southern Surgical and Gynæcologic Assn. advocating the use of ordinary water in rectal injections to restore blood pressure, on the ground that there is no more indication for administering a salt solution by this route than by the mouth, that there is often an indication to reduce salines in the system and that absorption would be more rapid if the injected liquid were of lower osmotic tension than the blood. He also calls attention to the importance of accuracy in the saline contents of liquids injected into the veins or subcutaneously. Hæmolysis occurs sharply if blood is placed in solutions at or below 5 per mille of NaCl or in those at or above 11 per mille. While a teaspoonful holds approximately 5 c.c. and corresponds approximately to as many grams of water, Trout has found that a teaspoonful of salt may mean anything between 115 and 270 grains (about $7\frac{1}{2}$ -18 grams). Various comments on Trout's advocacy of ordinary water are favorable. For several years we have carried or kept on hand for powders of salt containing the right amount to make a 6:1000 solution in a quart ($5\frac{2}{3}$ grams to 946 c.c.) Still better, we consider stock solutions corresponding to the various saline constituents of blood plasma, minus calcium. These solutions are, for the sake of convenience, made up in ten-fold strength and are the same as may be used in carrying out the Trunccek treatment of arteriosclerosis.

IRON IN THE BLOOD. P. H. C. Fowell, *Quart. Jour. of Med.*, 1912, page 179, states that normally, on the average, about a quarter of the iron in the blood is not combined as hæmoglobin, and that, in pernicious anæmia, half the total iron may be uncombined. This seems to be the most valuable hint as to the real nature of pernicious anæmia that has been given for a long time. Superficially, we may consider pernicious anæmia to be a specific failure of assimilation of iron by the red cells, and not a gross lack of iron. The next and more important, and probably more difficult question is why do not the red cells assimilate the available iron into hæmoglobin?

ZINC SULPHATE TEST FOR URIC ACID. Ganassimi, quoted in *Critic and Guide*, states that if an aqueous solution is added to uric acid or an alkaline urate, white, basic zinc urate is precipitated. On exposure to air it gradually becomes greenish or bluish. Albumins do not interfere with the reaction. He thinks this reaction will supplant the well known murexid test. It can be applied to blood.

PITUITRIN AS AN ECBOLIC. M. T. Benson, Atlanta, *New Orleans M. and S. Jour.*, June, 1913. In seventy-seven cases, twenty-seven of which were primiparous, labor pains were promptly increased although forceps were applied in thirteen primiparous and six multiparous cases. Forty-four multiparæ were delivered in from twenty minutes to two hours.

DIGESTIVE FERMENTS IN URINE. Tachau, *Zeit. f. Klin. Med.*, holds that urinary tests for pepsin, etc., cannot be relied on in the diagnosis of digestive conditions.

TUMOR OF HYPOPHYSIS. Rozabel, *Revista de Med. y Cir. Pract.*, September, 1912, presents two cases in brothers. Parents normal except for short stature and repeated abortions, Wasserman reaction negative in both. The brothers, at fourteen and eleven, showed increased fatty tissue, stunted growth, infantile genitals, double optic atrophy, amaurosis in older, hemianopsia in younger child. Both had a supernumerary digit on each foot and the younger had a hypospadias. X-ray showed no abnormality of the sella turcica.

BERI BERI AND POLISHED RICE. Creighton, Wellman and Bass, *Am. Soc. of Trop. Med.*, May, 1913, held that this was not a factor except negatively. Experiments on fowls and pigeons showed the same results from exclusive diet of potatoes and cereal breakfast foods.

DUPLICATE GENITALS WITH LABOR. J. E. Gemmell and A. M. Paterson, *Jour. Obs. Gyn. Brit. Emp.*, No. 23, 1913, describe a case with single anus and rectum, double vulva, vagina and uterus, bladder and urethra, wide separation of pubic bones and absence of umbilicus. Pregnancy and labor occurred in each uterus.

MICROMASTIA WITH ABUNDANT LACTATION. Variot, *Jour. de Med. et de Chir. Prat.*, calls attention to the lack of relation between the size of the breasts and the functional activity. He cites a case of a woman of forty with well formed nipples but with grandular masses no larger than a silver dollar. She had nursed satisfactorily seven children.

ARREST OF DEVELOPMENT OF LARGE INTESTINE AND TERMINAL PORTION OF SMALL INTESTINE. Marc Perrin of Paris, *La Clin.*

Infantile, March, 1913, mentions a case in an infant three days old on which he was called to operate for intestinal obstruction, making an artificial anus in what he supposed to be the cæcum. At necropsy it was found that the intestine, normal at the pylorus, gradually became dilated till, at 50 c.m. from the ileo-cæcal valve, it suddenly assumed the size of a pencil with a filiform lumen., the failure of development continuing till near the anus.

WASSERMANN REACTION IN CADAVERS. Major, *Johns Hopkins Hospt. Bull.*, discuss Bruck's claim that the Wassermann reaction is purely billogic and does not occur in cadavers. He found the reaction in the serum of cadavers not showing syphilitic lesions, death being due to various diseases. Fraenkel and Much and also Nauwerck and Weichert (the latter reporting a series of 200) on the contrary, claim an agreement between ante-mortem and post-mortem reactions in nineteen cases, the remainder of the series of 200 showing consistent results but not checked before and after death. Schmidt found an agreement in all of thirty-two cases examined before and after death. Major found an agreement in twenty-four of twenty-five cases. The remaining case died some time after vigorous anti-syphilitic treatment and the reaction, positive on admission was negative post-mortem. Major thinks that discrepancies, aside from the result of treatment, may be explained by the fact that careful necropsy may fail to show characteristic lesions although the case is really syphilitic.

DURATION OF QUARANTINE AFTER SCARLET FEVER. Lewis A. Sexton, New York *Arch. of Ped.*, May, 1913, speaks from an experience of 10,093 cases in six years. While the Sanitary Code requires a quarantine of thirty-five days, at the Willard Parker Hospital, forty-two days were required on the average and no case was discharged while a rhinorrhœa persisted. Notwithstanding these precautions, sixteen return cases were noted, apparently due to infection from discharged cases, all of which had subsequently developed a nasal discharge. In only two was desquamation noted after discharge and this was slight. The author denies the old notion that the desquamation is infectious, and lays stress on the danger of nasal and aural discharges.

R. S. Titus, Boston, *Boston M. and S. Jour.*, September 11, 1913, reports recovery after removal of Fibroma of Ovary, weighing 35 pounds.

INTESTINAL ANAEMIA. Prof. M. Loeper, Paris. Anaemia is not rare among patients with enteritis, either acute or chronic, whether the patients be young or adult. This anaemia is usually met with in certain cases of choleric form enteritis when microscopical examination shows the presence of bacilli resembling colib, paratyphoid, perfringens and enterocolic bacilli, and it may rapidly fall to 2,500,000 or even 2,000,000 red corpuscles. It is rather frequent in torpid intestinal conditions, muco-membranous enteritis, intestinal dyspepsia, typhlatony or typhlectasis, and then occurs in intermittent attacks appearing at the same time as an increase in the intestinal symptoms. This anaemia, connected both with hypohaemataemia and with hypo-haemoglobinaemia, urobilinhaemia, but not by choluria; the spleen is often hypertrophied and there may also be an increase in the of the liver. One may easily understand why anaemias which have their origin in the liver with intestinal troubles and abdominal pains should be often mistaken for liver attacks since both are characterised by the same discoloration of the skin and by an almost exactly similar localisation of the pains. Vomiting, however, as well as the pains spreading towards the shoulders and the urinary pigments are generally absent, and the condition is improved not by treating the liver but by treating the intestine, a point of the utmost importance. The examination of the stools reveals a slight insufficiency in the transformation of protein; the bacteria most frequently found are, as already stated, perfringens, enterococci and coliform bacilli. If we try to investigate the nature of these anaemias, we clearly realize that they are the result of a haemolytic process; still the resistance of the corpuscles is generally less, the auto-agglutination of the red corpuscles is absent but the increase in the haemolytic power of the serum is almost constant. The haemolysis is, therefore, the result of an exaggeration in the destructive power of the serum towards the red corpuscles, and not of a weakness of the red corpuscles themselves. If injected to rabbits, the serum of anaemic enteritic patients very often causes a diminution in the resistance of the corpuscles, and almost always a fall in the number of red corpuscles, this fall being much greater than with normal human serum.

The haemolytic substance is also hypotensive since these patients have always a tension below normal; it passes in the urine since the sediment of the urine experimentally produces hypotension and anaemia. This substance, which is certainly organic, seems to be produced in some cases by the ferments which are absorbed all along the alimentary canal; in other cases by bacteria,

namely, *perfringens* and *coli*, the haemolytic action of which is well known; in other cases again by the hypersecretion of the intestinal cells or even by their destruction.

No doubt the bacteriolytic products play a prominent part in cases of acute enteritis; the products of a cellular origin, the cytolsins have an importance which seems to be greater in chronic cases. If extracts of the intestinal mucous membrane, and especially of the mucous membrane of the ileon and colon, are injected to animals, a distinct anaemia is produced; and the haemolysing action of these extracts is increased by addition of pancreatic ferments. Therefore the absorption by the inflamed human intestine of pancreatic ferments and of intestinal products is an important factor of haemolysis. In its normal condition the liver prevents the haemolysing action of all these substances, but its stopping function is greatly disturbed in enteritis.

Of the above expose leads to the following practical rules in the treatment of enterogenous anaemia: disinfection of the intestine, even with lactic bacteriotherapy and aperients in small repeated doses; strengthening of the powers of the liver by salts of magnesia; increase in the resistance of the blood by lipoids and regeneration of the blood by calcium and iron products.

SODIUM BICARBONATE IN GASTRIC DISEASES. Dr. E. Binet, Vichy. Only moderate doses of bicarbonate of soda must be given; the dose of one drachm and a half is the maximum daily dose. Under such conditions the patients to whom this salt must be prescribed are those affected with disorders of gastric evacuation, and whose stomach empties itself too slowly. Late evacuations are met with in two cases and characterize two conditions. In the first case, owing to insufficient peristaltic contractions, the churning of the alimentary mass is too slow and insufficiently stimulates the opening of the pylorus. In the second case, the muscle has retained its normal tonus; but the contractions which it causes, however strong they may be, are only able to overcome very slowly the spasm which keeps the pylorus closed. In the first condition the diminution of the secretion, hypopepsia, is parallel with the muscular atony; it is the condition of its evolution, and its very degree enables us to evaluate the degree of the gastric hypotonicity. In the other condition on the other hand, hyperpepsia is generally present and the higher its percentage, the easier and the stronger is the reflex conclusion of the pylorus.

Clinically gastric pain in itself seems to be a sign of abnormal evacuation, whatever be its form in the course of digestion or its conditions of time and duration.

For all these reasons bicarbonate of soda is indicated in a great many cases. Except in cases when there is an acute ulceration (haematemesis or melaena) and except in some cases of gastric cancer, its use may be freely recommended. It must be considered not so much as giving an immediate and temporary result, but as a regulator of gastric digestion. Therefore, it must be given to prevent pain rather than to stop pain. This is why it seems rational to prescribe it in small doses repeated in the course of the same digestion.

The following combination seems to be the best to prescribe:

Sod. Bicarb	0.75
Magn. Pond	0.25
Pulv. Bellad. Fol.....	0.01

Patients with dyspeptic pains connected with motor insufficiency must take two of these powders an hour and half an hour before meals, and even half an hour and an hour after the same meal. Patients whose delayed evacuation is connected with a pyloric spasm, produced or kept up by hypersecretion, take these powders during the whole of their digestion, beginning an hour after the meal and continuing at intervals of an hour and a half until the next meal.

This *modus operandi* is to be preferred to Mathieu's treatment. Mathieu gives a teaspoonful of

Sod. Bicarb	oz.ss.
Magn. Pond	dr. j

Bourget's mixture may also be prescribed; it is a solution of dr. ij of sod. bicarb., dr. ss Sod. phosph, exsic. dr.ss, and sod. sulph. dr. ss., in 1000 c.c. of water; 150 to 200 c.c. to be taken first thing in the morning as soon as the pain appears.

It may be advisable to bring the solution of sod. bicarb to about 100° F. since it is well known that fluids the temperature of which closely approaches body heat are less irritating for the mucous membranes to which they come in contact.

In spite of all this and in spite of all the advantages of the alkaline treatment with bicarbonate of soda, it cannot be expected to work wonders even in the most suitable cases. A suitable dietetic treatment must by all means be prescribed at the same time. Even if this mode of treatment has to be prolonged as long as the pains persist, it is useless to reduce the dose as soon as the pains are less severe or less frequent; in other words, this treatment must be started at the same time as the dietetic treatment, but it must in no case be prolonged after the dietetic treatment has been stopped.

PROBLEM OF CARING FOR THE PREMATURE BABY. Bulletin of the Lying-in Hospital of the city of New York, November, 1912. Coolidge emphasizes the importance of: 1. Feeding, if necessary, by gauge. 2. Not mistaking apathetic nursing for satiety. 3. Anything but the incubator, the best plan being the incubator room as conducted at the Babies' Hospital. Room is kept at 90° F. with constant ventilation, constant and painstaking care to prevent chilling, irritation or infection of the skin.

The Mammary Glands and Eclampsia: Report of a case treated with Oxygen Infiltration of the Breasts.

James A. Harrar, Att. Surgeon, Sellheim, in 1910, called attention to apparent elaboration of toxin in breasts of eclamptics and went so far as to amputate for this condition.

Goodall, in 1911, reported three cases of infants apparently poisoned by eclamptic mother's milk.

In March, 1912, Jr. of Infect. Diseases, Kastle & Healy, on basis of successful treatment of parturient paresis in the cow, recommended the distention of the submammary areolar tissues with Oxygen for eclampsia.

Gilles and Ducuing reported the recovery of a case following this procedure, likewise E. Williams. Finally the writer reports another case in point. The injection was followed by no serious results but by a rather alarming spread of the artificial emphysema all over the upper body. In a week the patient had recovered from the disease as well as its treatment.

ADRENAL EXTRACT IN GRAVES' DISEASE. C. E. H. Warren, *Lancet*, March 18, 1913, reports a case greatly improved. We have personally used this method in about ten cases, dating back about ten years, with improvement in all except one case in which high-frequency cataphoresis was attempted instead of internal administration. This case, however, was very unruly and the duration of treatment was insufficient. One of the cases resulted in the complete disappearance of an apple-sized goitre, which caused the patient much mortification. She has for some years been able to dispense with laces, etc., at the neck and can wear costumes that would be indecent in a better developed person.

A CONTRIBUTION TO THE PATHOGENESIS OF FLINT'S MURMUR. M. Carrieu and J. Anglada, Montpellier, *Arch. des Mal. du Cœur, des Vaisseaux, et du Sang.*, 1913, VI, 253. Carrieu and Anglada report a case of aortic regurgitation with a distinct Flint murmur, with autopsy. The Flint murmur was due to a spur which projected into the left auricle from the wall of the aorta, encroaching upon the mitral orifice. The mitral valve leaflets were normal.

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ORIGINAL ARTICLES

The right is reserved to decline papers not dealing with practical medical and surgical subjects and such as might offend or fail to interest readers. Contributors are solely responsible for opinions, methods of expression and revision of proof.

Some Cardiac Problems*

By JOHN M. SWAN, M. D., OF ROCHESTER, NEW YORK.

AMONG the cases belonging to the field of the internist none present more troublesome or more important problems for solution than the cases of disease of the heart. The troublesome element in these problems is emphasized by the frequent reports in the newspapers of cases of sudden death from heart disease, so that a person who has been told that he has heart disease is likely to get the idea that his disease, also, must end suddenly. This idea has been possibly more strongly impressed on the lay mind within the last year by the production of a play, "The Return of Peter Grimm," in which a cardiac death is reproduced before the eyes of the audience.

I. VALVULAR LESIONS.

One of the first problems then that must be answered in a heart case is whether, because an individual carries a valvular lesion, he is bound to drop dead. The existence of a valvular lesion will not necessarily prove more than an annoyance, demanding a little extra care in the ordering of the patient's life; but not demanding medication or rigid abstinence from the ordinary activities so long as compensation is maintained.

Case 1.—Female, aged 24 years, who complained of being afraid she was going to die because she had been told she had heart disease. She was in the habit of reading all the reports in the newspapers about persons who died suddenly from heart failure and about disasters of various kinds. Then she would lie awake at night and worry about her condition. She complained of precordial distress and noticed that her heart occasionally dropped a beat. But she presented none of the symptoms of decompensation such as vertigo, dyspnea, palpitation,

edema and cough. This patient had a well compensated mitral regurgitation. The murmur was loud, and distinctly transmitted in the normal way; her liver was not enlarged; her systolic blood pressure was 138 mm; her pulse pressure was 60 mm; her pulse 80. She was subject to frequent attacks of tonsilitis and to hysterical attacks. One month after she was first seen she had an attack of tonsilitis; she had a second attack one month after the first attack, during which her temperature went to 102° and her pulse to 130. During this attack she developed a systolic thrill at the apex and an aortic diastolic murmur; both of which disappeared with the cessation of the attack. Ten months after she was first seen she fainted one morning after she had eaten an indigestible supper after visiting the theater; she had also been constipated at that time for several days. There was no change in the heart condition, however, and her pulse was 78 per minute when seen. I have never been able to detect an irregular pulse in this patient.

The problems in this case are: (1) Whether the mitral lesion justified a prognosis which so frightened the patient that she became hysterical. (2) Whether the precordial distress and the sensation of irregularity were due to the heart disease or to functional nervous disturbance. (3) Whether such a patient should have her tonsils removed. I cannot deprecate too strongly the tendency which I have observed in some quarters to give a serious prognosis upon the discovery of a cardiac murmur. I attribute the very unenviable condition of this patient when I first saw her to the very pessimistic outlook which she had been given by several men who had examined her. A well compensated mitral lesion may persist for years without decompensation if the patient lives an ordinarily careful life. On the other hand, it is just as reprehensible to let a patient with a valvular defect think he can indulge in athletic exercises and other extreme activities. In this case I am inclined to attribute the precordial distress and the sensation of irregularity to nervous influences. I am of the opinion that in a case of this kind tonsillectomy would better be done to avoid the danger of the toxic influence of repeated infections upon the hypertrophied heart muscle.

Case 2.—In contrast to this case is that of a man, aged 50 years, who had had several attacks of palpitation, dyspnea, precordial pain and vertigo. He had mitral regurgitation, which was well compensated. His cardiac dullness measured 18 cm. in oblique diameter; his systolic blood pressure was 125 mm.; his pulse pressure was 57 mm.; his pulse 68, regular, full and strong. Three months after his first examination he had an attack of vertigo, deafness in the left ear, weakness, nausea and

chilliness. On examination the oblique diameter of cardiac dullness was found to be 19.4 cm. There was a presystolic thrill; a presystolic rumble, followed by a soft systolic murmur which was heard all over the precordium and in the axilla. There was a soft blowing systolic murmur at the base of the heart, which was not transmitted into the vessels of the neck; and a soft systolic murmur at the ensiform cartilage. The edge of the liver was palpable. The systolic blood pressure was 118 mm.; the pulse pressure 58 mm.; the pulse 64 in the recumbent posture. I attributed this attack to a not very marked acute dilation of the heart. Rest in bed resulted in a return of the oblique diameter of the cardiac dullness to 17.5 cm., and the systolic blood pressure to 124 mm. During his period of confinement to bed, while sitting up one morning to have his bed made, he became weak and complained of vertigo. That night he felt chilly and had a febrile attack with the symptoms of gastro-intestinal disturbance. His urine at this time contained pus, epithelium, bacteria, uric acid, calcium oxalate crystals and a few hyaline casts without albumin. A rectal examination showed an enlarged and tender prostate gland.

The problems in this case are: (1) Was the attack diagnosed acute dilation an acute dilation in fact. (2) What influence had the prostatitis on his cardiac condition. The increase in oblique diameter of cardiac dullness from 18 cm. to 19.4 cm., may be within the limit of error in outlining the heart by percussion; but the appearance of the presystolic thrill, of a presystolic element to a murmur which had been purely late systolic, and a systolic murmur at the ensiform cartilage; a fall of blood pressure, and an increase in the size of the liver so that its edge became palpable, may be taken as sufficient evidence of a marked disturbance in the cardiac physiology and confirm the diagnosis. The prostatitis undoubtedly accounted for the septic attack experienced while the patient was in bed and illustrates the advisability of studying the patient from all points of view; not being content with the establishment of one lesion and overlooking others that may be present. Septic absorption from a chronically inflamed prostate is quite sufficient to disturb the function of a normal heart and can do more damage to one the seat of mitral disease.

II. IRREGULARITIES.

While the problem of the proper advice to give to a patient who carries a well compensated valvular lesion is often difficult of solution; indeed, it is not always easy to be sure that a valvular

lesion is compensated; the problem of the significance of a cardiac irregularity is even more serious and troublesome. There is, perhaps, no more alarming subjective symptom in medicine than the sensation of stopping of the heart, dropping of beats, or any other disturbance of its rhythm. But every cardiac irregularity is not indicative of myocardial change, as some appear to think. Many irregularities are the result of extracardiac influence, often of a toxic nature, and quite amenable to treatment.

Case 3.—Male, aged 65 years, contractor, complained of cardiac irregularity. He had been conscious of the dropping of beats for two years, and he described the sensation as a “fluttering.” He had had some attacks of vertigo; some dyspnea on exertion, without palpitation; some retrosternal pain on walking too fast; an occasional attack of “sour stomach,” which was relieved by vomiting; and some indefinite abdominal pain. He also complained of insomnia. The patient was a very large man, who weighed 239 pounds. He was a large eater of carbohydrates, and claimed to be a moderate user of alcohol on social occasions. For many years he had been addicted to the excessive use of tobacco; he smoked eight to ten cigars a day and chewed a pound of tobacco a month. Two years before I saw him he stopped his tobacco and had used none since. The physical examination showed a slight pulmonary emphysema and some edema of the ankles in addition to the circulatory condition, which was as follows: “Heart: P. M. I., not obtainable. Dullness, 3d interspace, 6th rib, 5 cm. to the right of the midsternal line, 17.5 cm. to the left of the midsternal line. Oblique diameter of cardiac dullness 25.5 cm. There is a soft systolic murmur at the apex, not transmitted and a loud systolic murmur at the base of the heart not transmitted; but heard louder at the right than at the left edge of the sternum. The muscular quality of the systolic sound is deficient. Blood pressure: Systolic, 144; diastolic, 92; pulse pressure, 52. Pulse, 68, dropped five beats in one-half minute, fair strength and volume, arteries thickened.” His urine had a specific gravity of 1.017, and contained neither albumin nor glucose, but there were a few hyaline and pale granular casts in the sediment.

The problem in this case was to determine whether the irregularity was due to a myocarditis or to some toxic influence acting on the heart. The man was very large, and his heart was larger than it should be even for a man of his size. The only important signs of decompensation were the apical murmur and the edema of the ankles. I decided to proceed on the theory that the irregularity was toxic, and so ordered eliminative treatment. He had

an electric light bath for ten minutes, followed by a blanket pack for one-half hour, a spray, and an hour's rest three times a week. His carbohydrate intake was reduced. After one month of this routine, although he felt well generally, there was no improvement in the irregularity. The edema had entirely disappeared; but he still complained of dyspnea on exertion and of rheumatic pains. His pulse dropped five beats in one-half minute. His blood pressure was: Systolic, 150; diastolic, 84; pulse pressure, 70; pulse, 75. He was then put on ten minims of tincture of digitalis and one minim of spts. glycerylis nitratis twice a day. At the end of two months of this medication the irregularity was still present. The oblique diameter of cardiac dullness was 24.5 cm.; the murmurs were still present, and the muscular quality of the systolic sound was still markedly deficient. His pulse was 60, and dropped every third beat. He was then put on sodium iodide, five grains after each meal. In two weeks the irregularity disappeared and has not been noted since, more than one year. The sodium iodide was continued for eight months. At the last examination the oblique diameter of his heart was 21 cm. The systolic, apical murmur had disappeared. The last observation of the blood pressure gave systolic, 145; diastolic, 102; pulse pressure, 42. The pulse was 82 and regular. His urine was still of low specific gravity, but at the last examination contained neither albumin nor casts.

Irregularities due to muscle disease are alarming and require great care and careful handling on the part of the physician. In order to have all obtainable evidence at hand, the irregularity ought to be studied by means of the polygraph or by the electrocardiograph, if one is obtainable. An irregularity that shows a prolonged a-c interval, I believe, ought never to be treated with digitalis.

Case 4.—Male, aged 42 years, had known that he had an irregular heart for sixteen or seventeen years. When I first saw him he was in a very nervous condition because he had received so many unfavorable prognoses that he had worried a great deal for fear that he might die suddenly. The patient led a sedentary life without excesses. He was of constipated habit. He had had two attacks, characterized by pain in his legs and unsteadiness of gait; but not accompanied by numbness or loss of power. He complained of feeling well in the morning, but easily getting tired during the day; his head felt heavy; he complained of palpitation after eating a heavy meal; of gas in his intestines and of cold feet. The patient was slightly overweight. His chest was asymmetrical. He had a marked scol-

iosis in the lower thoracic and lumbar regions, the result of falling down stairs when he was a boy. His heart was of normal size; there were no murmurs, and the muscular quality of the systolic sound was good. The blood pressure study showed systolic, 160; diastolic, 103; pulse pressure, 57. Pulse, 72; dropped five beats in one-half minute, small, fair strength, arteries not palpable.

I felt, on account of the normal size of this patient's heart, the absence of murmurs, and the good muscular element of the systolic sound, that this irregularity was not due to myocardial change. His urine showed a specific gravity of 1.028; no albumin, no glucose, but calcium oxalate and uric acid crystals and a few hyaline casts. This evidence of disordered metabolism and his constipation led me to look on this as a toxic case, and I put him on an electric light bath, ten minutes, followed by a spray at 95°, general massage, particularly to the back, followed by an hour's rest three times a week. At the end of a month the patient was less nervous, he noticed the irregularities much less, his blood pressure was: systolic, 142; diastolic, 105; pulse pressure, 37; pulse, 76; but the irregularity was still present; there was a drop of two beats every half minute. This irregularity has continued. I still look on the case as one that need give no uneasiness at present, at least from the cardiac side. I am inclined to believe that the deformity of the thorax, occasioned by the scoliosis, has some causative influence on the irregularity; sodium iodide had no effect on it.

Case 5.—A female patient, aged 59 years, complained of frequent attacks of palpitation of the heart and irregularity, of about one year's duration. The attacks began after being tired and rundown for several weeks, but the exciting cause was climbing a short hill. She had cataracts beginning in both eyes, dry mouth, dyspnea, and she was quite nervous. Her expression was anxious, no exophthalmus, no eye signs; the thyroid body was palpable. The heart was not hypertrophied; there were no murmurs, but the heart's action was very irregular. Blood pressure, systolic, 152; diastolic, 40; pulse pressure, 112. Pulse, 116; irregular. No gross arterial thickening. The stomach was slightly dilated. The attacks of palpitation and irregularity usually began in the morning or during the night. There was no angina, no edema. There was a fine tremor in both hands. Her blood showed a slight chloroanemia with 31.2 per cent. lymphocytes and 14.4 per cent. large mononuclears. Her urine contained a trace of albumin on one occasion and a trace of glucose on another occasion. There was a large number of uric acid crystals in the sediment but no casts. I attributed this palpitation and ir-

regularity to toxic influence, either gastrointestinal or thyroid. Dr. M. B. Palmer made a radiographic examination after a bismuth meal, and reported the gastrointestinal tract normal. After excluding a gastrointestinal influence the patient was put to bed, and an ice bag was applied to the precordium for three weeks, when the right superior thyroid artery was ligated and cut by Dr. M. B. Tinker of Ithaca. After this operation the attacks of irregularity ceased, but the pulse continued rapid. That is, out of fifty-one observations twenty-six were above ninety, although at the time the patient left the hospital, three weeks after the operation, the rate was between seventy-two and ninety the greater part of the time. On June 30th the left superior thyroid artery was ligated and cut. After this operation the pulse was irregular, the patient complained a good deal of dyspnea and the pulse was rapid, above ninety sixteen times out of twenty-six observations. The patient died suddenly early in the morning of July 9th. The question of the wisdom of advising surgical procedure in this case comes up. I felt that the cardiac symptoms were dependent upon thyroid influence. The absence of gross heart changes and of palpable peripheral vessels makes me believe that the cardiac symptoms were due to extracardiac influence and not to myocardial change. The high blood pressure might very well be due to thyroid influence. The sudden, unexplainable death might be due to auricular filtration.

III. RETROSTERNAL PAIN.

The last problem that I wish to touch upon is that of the opinion to be given in cases of precordial and retrosternal pain. Shall we, as some writers would seem to advocate, make a diagnosis of angina pectoris in every case of pain in the precordium; or shall we reserve that diagnosis for typical attacks only; those characterized by sudden, sharp pain with classical radiation and fear of impending death?

It seems to me that so far as the patient is concerned he would better be reassured whenever possible. I would prefer to tell a patient he has not angina pectoris when I thought he might have than to tell him he had it if I had the least doubt in my mind. On the other hand, some member of the family in such a case ought to be warned of the possibilities.

Case 6.—Male, aged 63 years, complained of retrosternal pain of two years duration. The attacks of pain came on whenever he walked or made any exertion; the pain was sharp, radiated into both arms, and was accompanied by flushing of the face. There was no sense of impending death. The cold weather made

his attacks more severe and more frequent. He sometimes had three or four attacks of pain in one day; but always one attack a day. Sometimes walking 1000 feet would bring on an attack; some of the attacks came on when he was undressing. He complained of a morning cough, with a little expectoration, which had been bloodstained, and dyspnea and palpitation of the heart on exertion; but none of the other signs of decompensation. The physical examination showed a rather thin man, with a sallow complexion and a slight amount of suborbital puffiness. There was moderate pulmonary emphysema. The examination of the heart is recorded in my notes as follows: "P. M. I. not obtainable. Dullness, 3d rib, 5th interspace, 2 cm. to the right of the midsternal line, 10.5 cm. to the left of the midsternal line. Oblique diameter of cardiac dullness 16 cm. There are no murmurs. The diastolic sounds are equal in intensity. The muscular quality of the systolic sound is decidedly deficient."

There were no alterations demonstrable in the abdominal organs. The blood pressure determinations gave systolic, 129; diastolic, 74; pulse pressure, 55. The pulse was 82, regular, good strength and volume. On assuming the upright from the recumbent posture the pulse decreased to 76. His urine was rather high in specific gravity; contained no albumin and no glucose, but the sediment showed a few hyaline casts and uric acid crystals. There was a marked excess of indican.

This patient had consulted many physicians; he was worried and anxious on account of the diagnosis of angina pectoris that had been made by some of the physicians consulted. On account of the absence of cardiac enlargement; on account of the absence of symptoms of serious decompensation, to be sure he had dyspnea and palpitation on exertion, and on account of the low blood pressure, I told him positively that he did not have angina pectoris. I started him on a course of carborated brine baths, which did him no good, and a short time after I saw him last he died of cardiac failure after a typical attack of angina. In this case I failed to give proper weight to the fact that the attacks of pain were brought on by exertion, to the low blood pressure, and to the marked deficiency of the muscular quality of the systolic sound of the heart.

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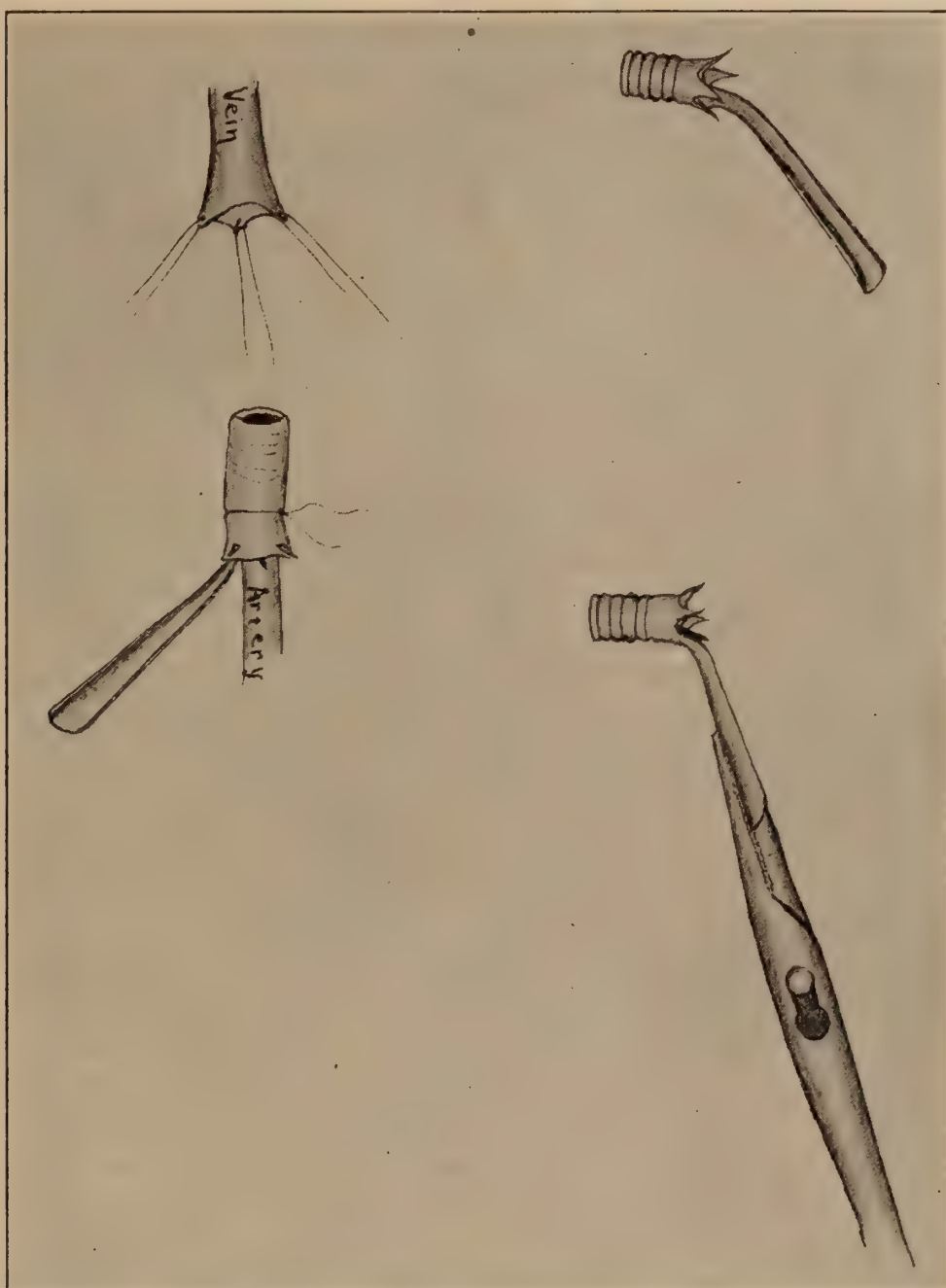
Transfusion of Blood, a Modified Instrument and a Tabulation of Indications

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THE proposed modification of the instrument consists in the addition of a row of hooks to the upper edge of the well known Crile Cannula, used in transfusing blood from one person



to another. The illustrations accompanying this description make the matter clear at a glance. It should be observed, however, that the hooks are turned outward and that they are sharp only at the tip, and that the spaces between the hooks, as well as the lower parts of them, are well rounded off and smooth. Two styles of

the idea are possible, either that the hooks be placed on the outer surface of the cannula near its upper edge, or that they be formed of the upper edge itself. This latter is the style adopted largely because of its greater simplicity of manufacture.

No lengthy explanation of the use or advantage of this modification will be attempted. Both are evident in the drawings. It is the general experience of those doing transfusion by the Crile method that after the vessel has been drawn through the cannula and is about to be everted, by means of the three grey sutures, over the outer surface of the cannula, that the successful performance of the succeeding steps often proves a very tedious and exacting stage of the operation. Particularly is this true of holding the cuff of the everted vessel in position while the operator places a ligature to fasten it to the corrugated surface of the cannula. In fact, often because of this difficulty, it has seemed wiser for the operator himself to hold the cannula and manipulate the vessel over the same by means of the grey sutures, and thus hold it in position in order that the assistant may place the ligature which fastens the everted cuff of the vessel to the cannula.

Even when this difficult step has been completed, another of like character is met with in drawing the vessel of the other individual over the one just described by means of its set of grey stitches and holding that vessel steadily in place while the outer ligature is tied, thus establishing the anastomosis between the two individuals. The use and advantage of a row of hooks is obvious, for when either vessel is once in its right place it will catch over an adjacent hook and be held there while the process of tying the ligature is completed. The simplification is effective for both steps and obviates the distressing delays due to the vessels' slipping out of position before the ligatures can be tied.

No great claim to originality is made, as somewhat similar hooks have been used in several instruments intended for transfusion. These differ much from each other and from the Crile cannula and none of them possess the paramount advantages of the latter. Therefore, the placing of hooks upon this cannula would seem a very desirable modification.

The models were prepared for me by the Rochester Electro-Surgical Instrument Co., as a matter of personal courtesy. That firm does not wish, however, to make others, as their efforts are directed to other lines. The author intends to make arrangements with another firm for the manufacture of this modified cannula.

PART II.—THE INDICATIONS FOR TRANSFUSION.

The indications for transfusion of blood are by no means definitely established. Invariably there is much diversity of

opinion in the use of any new method. This may be due on the one hand to over-enthusiasm and occasionally dishonest exploitation of the method, and on the other hand to skepticism and fear and lack of knowledge. Therefore, it seems desirable to attempt to tabulate our indications and show where we stand. Each group will be given a separate paragraph.

1. By far the most definite indication of transfusion is to supply blood in acute secondary anaemias of extreme degree. These are largely of the type of accidental hæmorrhages, including post-operative, post-partum, and the various internal hæmorrhages from special systems or organs. It is, therefore, an emergency relief when the patient is practically exsanguinated and in great jeopardy of life. Every surgical effort should be made in each case to control the local bleeding, either by ligature or otherwise. Often this can be done by a simultaneous operation with that of transfusion. It must be constantly kept in mind that if the local control is not secured, the very act of transfusion may be harmful because of raising the blood pressure and thereby causing renewed bleeding. If the bleeding has ceased of itself and an immediate operation may not seem warranted, as in a gastric ulcer, then the transfusion may be done after an interval, possibly on the following day. If the bleeding from the ulcer is extreme and repeated, then a transfusion and simultaneous operation on the ulcer is indicated.

2. The indication of next importance is that of promoting coagulation of the blood in hæmorrhage occurring in hæmophilia, jaundice, and other hæmorrhagic blood states. We have drugs and serums which should be tried first. The development of these simpler methods of promoting coagulation is very desirable. When they have failed, however, in a given case, we have in the transfusion of blood a nearly infallible method. It may be, too, that the loss of blood has become so great that transfusion is indicated on that ground alone. I think that it is granted, even by the advocates of other measures, that when these two indications are present together, namely, extreme anæmia and low coagulability, that immediate transfusion is indicated.

3. Transfusion to supplement a major surgical operation in a very anæmic patient is an indication of great promise. Without it the operator may be deterred from doing a thoroughly extensive operation at a time when it is still of value. Such a patient may be transfused just before or during such an operation. When the degree of such anæmia is known and an especially bloody operation is feared, it is wise to transfuse before or during the operation. It will be of greater value than afterwards for two reasons, namely, that the shock from loss of blood

is lessened and that of the actual blood lost a certain proportion is foreign transfused blood. It is evident, therefore, that such a patient will come off the table with more of his own blood preserved than might otherwise be the case. It seems reasonable, too, to suppose that by a partial constriction of the extremities we may succeed in preserving in this way a greater proportion of the patient's own blood in that the loss in the operative field will be constituted more largely of the transfused foreign blood. This is an original suggestion of the writer. It may prove of considerable significance.

4. In the treatment of gas poisoning transfusion may be indicated on the ground of the pathology of this subject, for the hæmoglobin of the blood has formed a permanent compound with the poison and thus rendered it inactive as an oxygen carrier. The degree of poisoning could be determined by the spectroscope. Often its degree may be so evident that a transfusion should be done without delay, perhaps at the same time while we are doing artificial respiration. All that has been said applies to other similar poisons which hold the hæmoglobin inactive, such as carbon monoxide hæmoglobin, nitric oxide hæmoglobin and methæmoglobin, which latter occurs in certain coal tar product poisonings. In the milder types of these cases we give the usual treatment, but in the severe types one might bleed a little and then transfuse immediately afterward.

5. In this last group I wish to include all those ill defined and not yet well established indications for transfusion. If transfusion were a simpler operation it might be done merely to get the therapeutic effect of good, fresh blood, just as we might administer any drug or serum or organic product. The possible value of blood repeatedly given early in a case of pernicious anæmia is a question recently proposed. No one can predict as to its value in this disease, for in the past it has been given to moribund patients only and then has proved of little use. The same may apply to any aplastic anæmia. A future use of much promise is in splenic anæmia with simultaneous removal of the spleen as well. In many of these cases it is assumed that repeated transfusions would have to be done. The value of transfusion in tuberculosis is much in question at the present time, and the more prevailing opinion now seems to be against its use. Transfusion preceeded by blood-letting may be of value in certain severe toxæmias of various kinds. Thus it may be that this group will ultimately include eclampsia, pneumonia and pellagra. It is very desirable that the value of transfusion in these conditions be investigated by those who may be able to do so in a scientific way in a hospital surrounded by facilities for the accurate determination of the value of the pro-

cedure. The many failures that will occur and the many unsatisfying results may bring the method into disrepute if these trials are made in a mere random manner.

In every transfusion it is important that certain conditions should be carefully considered in each case and complied with if possible. The most important refers to the selection of the donor who should be free from transmissible disease, such as syphilis. The next also refers to the donor but with regard to his future welfare, especially with regard to the possible existence of latent disease, such as tuberculosis, which would rapidly grow worse; with regard to pregnancy if the donor is a woman; and lastly, with regard to its effects on a neurotic temperament or unstable mentality. Another matter of prime importance is the question as to possible hæmolysis or agglutination of the bloods, one to another. If this cannot be tested, close family relations, such as brother and sister, afford the greatest assurance of safety.

In transfusion we have a method compared to which there is none other. It would be unfortunate, indeed, if it fell into disrepute because of its careless routine use without thought as to indications and contra-indications and possible unfortunate results. Besides mere mastery of the technique, the operator should possess accurate knowledge of those dangers inherent in the method. Finally we must never lose sight of the great moral obligation which we are under toward the generous and trusting donor of that most precious fluid to safeguard him by all the means and knowledge at our command against a liberality which might too severely tax his vital capacity.

PART III.—A NOTE ON A NEW METHOD OF DETERMINING WHETHER AN ANASTOMOSIS IS ACTUALLY EFFECTIVE.

When the technical part of an anastomosis has been performed, everyone wonders whether the blood is actually being transfused. In the past we have watched the vein beyond the anastomosis dilate and pulsate and have hoped that these were signs that the blood was flowing. But we have placed little reliance on these signs.

Occasionally, when the opportunity offered, we have made a little arrangement to help decide this matter. This was possible only if there happened to be a branch of the main vein near the anastomosis. We have then merely clamped off that branch with a pair of artery forceps or bull-dog clamps, which we could easily remove at any time, to note whether blood would distinctly spurt from this lateral branch or merely flow as it would from any vein at all.

The new method which I am proposing occurred to me before a recent transfusion, and I feel convinced of its value. When one auscultates over the recipient's brachial vein at any point beyond the elbow where the anastomosis is usually made, a double sound is heard, which in some manner corresponds to the donor's heart beats and which can be stopped by merely pressing upon either of the vessels of the anastomosis. We have repeated this many times and invariably heard the sounds when the transfusion was effective and could stop them at will by shutting off the flow. Then, as soon as the finger was again released, the sounds reappeared. By this test we seem to be able to prove that a given anastomosis is actually effective.

FIBROMATOSIS OF THE STOMACH. Alexis Thomson and James Graham, *Edinburgh Med. Journ.*, July, 1913.

The absence of characteristic granulation tissue and of endarteritis and a negative Wassermann reaction exclude syphilis through the possibility of a gumma of the pylorus causing stenosis is admitted.

A specimen showing cancer and tuberculosis led to the conclusion that fibromatosis was neither directly tuberculous nor due to attenuated tubercular infection described by Poncet. Fibromatosis may occur without cancer. Fibromatosis is an innocent affection of the stomach and is invariably associated with an ulcer.

When fibromatosis is associated with a deep punched-out ulcer, the surrounding mucosa may be normal. This appears to indicate that submucous fibromatosis is not the cause of the overlying ulceration.

The changes in the mucosa are primary and the submucous fibromatosis is secondary. The diffusion of the fibromatosis from the submucosa into the mucous coat, especially along the lesser curvature, and its sudden arrest at the pyloric ring, suggest that some irritant toxin is absorbed from the ulcer and in its passage along the lymphatics sets up this marked reaction.

Since ulcer precedes fibromatosis it is fairly common to find cancer as well. Attention is directed to the interesting observation that fibromatosis of the duodenum has not been recorded. The duodenum, as we know, is practically immune to cancer, in spite of the great frequency of ulceration.

In fibromatosis there is often a palpable tumor, and usually no free hydrochloric acid, so the diagnosis of cancer is confidently assumed. Owing to the difficulty of naked eye differentiation from cancer and the total unreliability of "while-you-wait histology," the authors advise resection of the affected parts.

A Case of Congenital Absence of the Vagina—Artificial Vagina Made by Intestinal Transplantation

BY THEW WRIGHT, F. A. C. S.

Attending Surgeon Emergency Hospital

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Buffalo, N. Y.

Read Before The Buffalo Academy of Medicine, Jan. 21, 1913

THIS case has been of interest from a psychologic as well as a surgical point of view. The condition with which it deals is fortunately comparatively rare, and it is on that account, perhaps, worthy of mention as well as because it is but the seventh case in the literature in which a section of intestine has been used to form an artificial vagina. When the case was first brought to my attention, and before I had seen and talked with the patient, there was some doubt in my mind as to the propriety of attempting an operation such as I shall describe, but a more careful consideration of the patient's plight made me realize that an attempt to relieve it was not only justifiable but was in fact a duty if one felt that the surgical procedure lay within one's skill. The question of propriety was, of course, whether from a moral standpoint it is proper to render sexual intercourse possible to an unmarried girl by means of an operation, which will not give her the ability to bear children. If we assume that the practice of our profession includes the lessening and elimination of both physical and mental distress, which we should certainly do, then such an operation is not only justifiable but is, I think, demanded in such a case as this.

The desire for sexual gratification is implanted in every sexually developed individual and is nature's means of insuring perpetuation of the species. Each individual may, however, satisfy this desire or not, as he or she wishes. Should an individual choose to abstain from such sexual gratification, such abstinence is, as a rule, harmless, especially when voluntary, many authorities to the contrary notwithstanding. When, however, an individual has the knowledge that although he is apparently sexually developed, the sexual power is absent, the situation is very different. The effect is somewhat different, as a rule, in men and women. In the woman the desire to bear children is the strong point, whereas in man the desire for sexual intercourse is the greater. We must differentiate the mischief caused by the inability to procreate and the inability to copulate. Sterility is, as a rule, recognized only after repeated fruitless intercourse.

The single man has no idea that he is sterile unless his suspicion may have been aroused because of some disease that he may have had, such as double epididymitis. The virgin never

has any knowledge of her sterility and always has the power of intercourse, except in such cases as the one under discussion. Knowledge that he is sterile has a detrimental effect upon the man, but this is by no means so marked as that which follows when he is unable to perform the sexual act. The knowledge that he is impotent has often been the cause of melancholia and driven many a man to suicide or to the asylum, even though he was single and his impotence need not have been exposed.

Female sterility is common and it often has a deleterious effect, especially when the husband is anxious for children. Such a condition may cause most pronounced psychic disturbance. Occasionally, to be sure, the knowledge that she can bear no children is looked upon lightly or even with pleasure. Impotence in the male corresponds to the lack of sexual desire in the female. The latter condition is by no means rare and is always a strain upon the married woman. Apart from the fact that intercourse without desire or pleasure becomes more and more distasteful to the wife and makes the married state harder for her; she finds in her lack of sexual appetite something that causes her shame. Such a patient as this is not uncommon and calls for sympathy and tact on the physician's part. Occasionally the knowledge that the ability to become pregnant does not depend upon sexual pleasure will serve to change her feeling and make her marriage duty less irksome.

Now, when we see the mere lack of sexual desire working such havoc, we have no reason to suppose that the rare condition of absolute mechanical inability to perform the sexual act will have any less influence upon the mental state of a fully developed girl than upon a man. It is not the abstinence that causes the feeling of shame and self contempt, but the fact that the abstinence is not of choice but of necessity. The fact that a person in perfect bodily health will choose to undergo an operation of considerable severity and risk is, perhaps, the best evidence of how severe the mental suffering in such a case may be. The case which I shall report is an example, for her decision to submit to an operation was not made of a sudden, under any temporary outburst of sexual feeling, but was the cool decision after months' of consideration, as she had known her condition for a year and had been told of the proposed operation, its limitations and its dangers many times.

The patient, a blond, twenty-two years of age, was to all outward appearances well developed. She had always been healthy and had considered herself normal until a year previous to her coming under my observation, when, owing to the failure of the establishment of menstruation, her mother took her to consult

a physician. Although she was at this time 21 years of age, there had never been any sign of menstrual flow, either normal or vicarious, nor of any periodic nervous manifestations.

Her physician discovered her congenital defect at this time and explained the condition to her and to her mother.

Following the appreciation of her defect the patient began to brood over her condition until she became morbid and said she would not live longer unless it could be changed. When her physician brought her to me she was in a serious mental state.

Examination showed the following conditions: A well rounded figure of five feet six inches in height and 135 pounds weight. Breasts well developed. External genitalia perfectly developed and normal in appearance with a normal clitoris. There was an abundance of pubic and axillary hair. With the patient in the lithotomy position, however, examination of the perineum failed to show even the slightest dimple at the site of the normal vaginal orifice. Examination with a finger in the rectum and a sound in the bladder showed that these two organs were in contact. Bimanual examination with a finger in the rectum and hand on the abdomen revealed an oval body about two inches long situated well up on the pelvic brim, which was taken to be an infantile uterus.

The patient was again told the nature of her defect and that it was not in any way life-endangering, and that any attempt to better it would be attended with considerable risk and might be unsuccessful.

With a full understanding of the risks and limitations of the operation she demanded that it be undertaken and underwent it on June 10, 1912.

A careful perusal of the literature showed that the only operations for this condition that could be in any way called successful were those reported by Baldwin, Mori and Mueller in which they had utilized a portion of intestine to form the lining of the newly-made vagina. I chose to follow the plan outlined by Baldwin and successfully carried out by him in four reported cases, and varied its technique but little.

With the patient in the lithotomy position a transverse incision was made in the perineum at the site where the vaginal orifice would normally have been, and through this the bladder and rectum were separated and a roomy channel formed for the reception of the intestinal loop. A long forceps was then placed in this channel and the patient placed in the dorsal position. The abdomen was then opened in the median line and the pelvis inspected. On each side of the pelvis, well up on the brim, was an ovary somewhat larger than the average and a fallopian tube

normal in size and appearance. Each tube ended anteriorly in an oval body about one and one-half by one-half inch in size, representing the lateral segments of the uterus. In front both round ligaments were easily demonstratable and they met in the median line in a third oval body whose presence and nature I am unable to explain, of about the same size as those at the sides. The appearance was as though the uterus had started to develop from three segments instead of two. There was no sign of a vagina. After inspecting the pelvis I selected a portion of the ileum ending about five inches from the ileo-cecal valve as being the loop which could be most readily drawn down to the perineum, and resecting about 12 inches of it, closed the ends of the resected portion with purse string sutures and restored the continuity of the ileum by end to end anastomosis with suture. I then cut the peritoneum of the pelvic floor and placed the center of the resected loop in the jaws of the forceps I had left in the vaginal channel and which an assistant closed and drew down until they were outside the perineal floor. This caused an appreciable traction on the mesentery of the loop, but not enough to interfere with its blood supply. After suturing the pelvic peritoneum around the loop as well as possible, the abdomen was closed in layers and the patient again placed in the lithotomy position. The bowel was then opened at the site of the forceps grasp and the edges of the incision sutured to the vulva and the perineal skin.

The two limbs of the loop of gut were then tightly packed with gauze and the patient returned to her bed. The operation took one hour and forty minutes and was followed by no appreciable shock.

Convalescence was uneventful except for rather prolonged post-operative nausea, which I think was due to the tension on the mesentery of the loop necessary to bring its center down to the perineal skin.

The result in this case has been perfect. Healing was prompt and a careful examination two months after the operation showed a vagina of normal appearance and whose only apparent abnormality was the absence of a cervix at the vault and the presence of a slight septum, which later can be removed when desired by clamp pressure.

The result on the mental condition of the patient has been all that could be wished and has fully justified the procedure.

The technique followed in this operation differed from that described by Baldwin only in that suture was employed instead of the Murphy button in making the intestinal anastomosis.

A person's communication from Dr. Baldwin tells me that since his last report he has performed the operation successfully sev-

eral times. I wish here to express my admiration for his ingenuity in devising an operation so excellently adapted to the condition, and one which is attended with so little risk and which can be performed with such assurance of success.

479 Delaware Avenue.

SPECIAL ABSTRACT

Variola Vaccine In Pure Culture

Staff Physician Dr. W. Fornet, *Berliner Klinische Wochenschrift*,
October 6, 1913.

Editorial Note.—News of this discovery reached us in time for the November issue, but the interest of the subject and recent experience of others in accepting too readily similar announcements, made it advisable to consult with Dr. C. A. Ewald, our associate in Germany, and to await the receipt of the full report. Dr. Ewald endorses Dr. Fornet's work as trustworthy. The *Wochenschrift* did not arrive in Buffalo until October 29, when most of the November issue had been printed.

After citing the well known limitations to the permanence of glycerinated lymph and describing preliminary experiments, the author describes his method in detail. Fifty centigrams of raw lymph without addition of glycerin or several small pox pustules are poured with 20 c.c. of ether into a 50 c.c. powder bottle. The glass stopper is secured with string and a rubber cap and agitated by machinery for twenty-four hours at room temperature. Cultures are taken in bouillon, agar on the slant and deep. If necessary, the process is continued till the material is shown to be sterile, under both aerobic and anaerobic conditions. This furnishes a very active vaccine to which the specific culture methods can be further applied. For this purpose, Pasteur glass cylinders serve best. Wadding is placed in the glass cap which is closed by a valve, such as are sold for the inner tubes of automobile tires. The cylinder is two-thirds filled with cattle serum or ascites bouillon ($\frac{1}{3}$ serum plus $\frac{2}{3}$ sugar bouillon), a bit of spongy platinum being added to facilitate anaerobiosis. The inoculated and well closed cylinder is now placed in an anaerobic apparatus from which the air has been exhausted as far as possible with a filter pump. At this time the automobile valve is opened, while it is again closed during the following introduction of hydrogen. Repeated making and breaking of the vacuum, incubation at 37 degrees C. for 5-10 days, follow. Reinoculation on fresh tubes of serum bouillon, and preservation of the inoculated tubes in the ice box. When a

considerable number of cultures and daughter cultures have been secured, the testing on the calf or on children follows. Smears are also made and are stained with Löffler or Giemsa solution for twenty-four hours, or are examined with the dark field.

The author alludes to the analogy of other filterable viruses, such as that of rabies and of poliomyelitis, recently described by Flexner and Noguchi. He refers to the organism as the *Microsoma variolæ seu vaccinæ* and plainly implies an identity of the two. (Note—While this theory is an old one, the minority view for a good many years, probably the majority one recently, it has usually been conceded, even by those who did not believe small pox and cow pox to be essentially different diseases, that the virus of vaccina was essentially and permanently mitigated by passing through the calf and some have even given a complicated, illustrated explanation of shortening of the life cycles of the germ. Certain strains of bovine vaccine have been historically traced back to the inoculation of the first calf with human, small pox virus, but, so far as we know, this is the first time that a vaccine has been directly prepared from variolar lesions. It does not seem that "einige Pusteln von Pockenkranken" can mean anything else. It is stated also that these cultures can be secured in the same way from genuine small pox as from cow pox, and no explicit warning is given nor any statement that the cultures derived from these two sources are to be differently used or give different degrees of reaction. This matter is of so much importance—possibly even medico-legally, since the old laws against inoculation may still be in force—that we have made these statements as clearly as possible and invite criticism.)

Macroscopically, the inoculated cultures scarcely differ from uninoculated tubes, except that after long incubation a slight cloudiness develops, especially near the spongy platinum. Microscopically, nothing was found in fresh hanging drop and stained preparations. Only after the application of hot carbol-fuchsin, strong Giemsa solution and a mordant, especially Löffler's, were very small, round corpuscles visible, 0.2-0.5 microns in diameter. In their characteristic arrangement, they lay in pairs, surrounded by a slight halo and connected by a delicate bridge. Magnified 2000 times and viewed in the dark field, a special differentiation of the center was noted. The question as to whether these were really minute organisms or precipitates of albumin or from stains suggested itself since Hunttemüller had found quite similar appearances in uninoculated cultures. But the complete rounding of the forms, the dominant arrangement by pairs and the unanimous agreement of stained and unstained dark-field specimens, lead to the opinion that they are really micro-organisms. Their resistance to disinfection of various kinds and biologic peculiarities exclude them from the bacteria.

Similar forms have been noted by Karl Weigert, 1874; Renault, 1881; Pohl-Pincus, 1882; Gorini, 1900; Calmette and Guérin, 1901; Dombrowski, 1902; Bosc, 1904; Prowazek, 1905; Paschen, 1906; Casagrandi, 1906; Volpino, 1907; and others in smears and sections. Robert Koch, 1881, found similar bodies in sections of the kidney of a small pox patient, with a magnification of only 700.

The author concludes: that raw lymph can be freed from extraneous germs by shaking with ether, twenty hours usually suffice, but no damage is done by extending the period to 150 hours; the sterilized lymph is as efficient as glycerinated lymph, which is not absolutely sterile; the sterile, ether-lymph is stable for a long time, even at rather high temperatures; the virus can be inoculated from one tube to another but loses somewhat in virulence; cultures can be secured either from genuine small pox or from cow pox; the *microsoma variolæ seu vaccinæ* (note that he uses the conjunction *seu* and not *aut*) is the active germ, since it is the only living organism in the active cultures; it resembles in the minutest details the various descriptions of many previous authors.

MELANURIA WITHOUT MELANOTIC TUMOR. Zoeppritz, *Münch. Med. Woch.*, No. 23, 1911, reports the case of a man of 69, suffering with multiple abscesses, later developing ileo-psoas abscess with perforation into the peritoneum and death. The urine, yellowish-brown as passed, gradually became black and opaque on standing and gave the characteristic tests for melanin. Necropsy revealed a small annular carcinoma of the sigmoid, with metastases to the meso-sigmoid and peritoneum but no pigment deposits. Phenol, salol and coal-tar products were excluded. There was no nephritis as in the case of Gaezda, who considered the increased renal permeability the cause of the melanogenuria. Helman found that 7.3 per cent. of melanotic tumors showed melanuria. Melanuria without tumor is exceedingly rare, and the possibility of an undiscovered small melanotic tumor must be borne in mind.

QUININE BLINDNESS. Zani, *Riv. Veneta di Sci. Med.*, August 15, 1911, reports a case of a woman who attempted suicide by swallowing 20 grams in tablets. Toxic symptoms began in five hours. Gastric lavage, coffee, purgatives and enemata, sinapisms and hot applications prevented death. Visual hallucinations, mydriasis, retinal oedema with blindness, and tinnitus aurium were noted. Central vision returned in fifteen days, peripheral vision and color vision, more gradually. The disc was atrophic with small vessels.

BUFFALO MEDICAL JOURNAL

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No. 5

Is the Bacillus Tuberculosis the Cause of Tuberculosis?

We raise this question not in the bacteriologic sense, but as a live issue in practical prophylaxis—a live issue because the medical press is replete with articles which, without in any way denying the existence, identity and infectivity of the bacillus, more or less explicitly minimize the importance of measures to prevent foci of infection and lay all the stress of prophylaxis and therapeutics upon the raising of resistance.

An old politician was asked if the fact that he was regarded as a dangerous radical at the outset of his career and as an ultra-conservative in his later life, did not indicate a process of gradual maturing and gain in wisdom. He replied that his views had remained fixed but that popular opinion had changed. The same question and answer might apply to the writer with regard to tuberculosis. It is not intended, however, to urge the scientific conception of the bacillus as the essential and practically operative cause of tuberculosis. This task might better be left to those more expert and more directly concerned with tubercular cases. Nor would the writer give the impression of ignoring the importance of means of increasing resistance. Indeed, whatever cases he has undertaken, have been with the full understanding that he did not regard the present so-called antiseptic measures as of much value, that he would not attempt to treat the lungs or other part involved, that he did not regard methods of conferring specific immunity as yet in a practical stage, that he had no personal views as to hygiene different from the prevalent ones, except that he would not expose a sick person to inclement weather liable to be dangerous to those in health; in short, that the treatment should depend mainly upon careful nutrition. By careful nutrition, is meant a properly balanced diet, adapted so far as possible to the needs of the particular

patient, and not implying an overdose either of any one organic food stuff or of all.

The following table, prepared by Biggs, shows that there has been a decided diminution in tubercular mortality. It may be questioned whether this reduction is due to what may be called germ prophylaxis or to hygiene. It is evident, on a little reflexion, that the marked decrease in the general death rate, due largely to prevention of traumatisms, typhoid and acute infections generally, individual improvements in therapeutic measures, etc., would, if anything, increase the tubercular mortality, by saving lives to succumb to this disease. On the contrary, Biggs's statistics show that, on the whole, the tubercular mortality has declined more rapidly than the general death rate. This can be due to only two general factors, germ prophylaxis and personal hygiene. Personal hygiene may be facilitated by general sanitary measures, but these measures must be reduced to one or the other of these factors.

It is impossible at present to prove statistically which of these two factors deserves the credit. Habits of exercise and ventilation have improved in recent years. Hours of labor and lighting have been improved. There has been considerable nominal improvement in foods. On the other hand, there has been a relative increase in indoor work, a considerable condensation of population, especially in cities which are the basis of Biggs's statistics, and a very marked increase in the cost of food. Provision for incipient and suspected tuberculosis has increased, but it is doubtful whether to such an extent as to have influenced the statistics given.

With this balance of hygienic factors and the difficulty of drawing conclusions, it is, to say the least, advisable to continue strenuous efforts at germ prophylaxis. In Cleveland, careful study has shown that every death from tuberculosis corresponds to eight living foci of infection. It is very easy to say that, unless we can eradicate every fomes, there is no use in bothering with any; that the predisposed individual will pick up his germ somewhere and sometime. The fact remains that, largely owing to the disinfectant properties of sunlight and the relatively small chances of dissemination of bacilli except in dust or by gross contact with infectious masses, the striking distance of a case of tuberculosis is short. Another important point to remember is that both infectivity and prophylaxis operate in geometric not arithmetic progression. Every case tends to produce not one but several, and each of these several more, and so on, up to the point at which lines of communication cross or the entire susceptible part of the population becomes tuberculous. It is altogether probable that this point was actually reached in our

country, when the ordinary minimum general mortality was about 20:1000 and the tubercular mortality about 2:1000. On the other hand, the safeguarding of one case of tuberculosis means the successive escape of several, several times several. . . . individuals subject to the diminishing occurrence of crossed lines of communication, until the final limit is reached of a minute incidence among the highly susceptible by the probably inevitable occasional residue of fomites.

We have recently seen several medical articles emphasizing the importance of measles, pertussis and influenza as predisposing to tuberculosis, and we wish to point these articles with a new moral: that a large share of susceptibility to tuberculosis is a transient condition and not inherent and permanent in the individual. If we can, by various systems of quarantine (using the word in an elastic sense) prevent the contact of tuberculous and non-tuberculous individuals for any appreciable number of the latter or for any appreciable period of unusual susceptibility, we can diminish tuberculosis at a rate that will increase until the minimum is reached. If we can diminish, by methods of disinfection, the gross amount of infectious matter so that, by the law of chance, there will be certain places free from it and so that the general environment of the average person will be free from it for appreciable periods—one windy, dusty afternoon, for example—we can eradicate the starting point of other geometric series of infectious transmission.

Remember that we are dealing, save for the interfering factors mentioned, with decreasing geometric series. With the exception of Chicago, where there has been a considerable alteration in conditions, the various cities mentioned show absolute tubercular mortalities varying from a little over 6/10 to a little less than 9/10 of what they were ten years previously. This diminution does not, of course, represent one step in a geometric series, but several steps at very irregular intervals. On the average, it is probably about three years from the death of one case to the death of the cases directly dependent upon it, so that the change for the decade represents approximately three terms in a descending geometric series. However, for our purposes, we may take the decline for a decade as a single term in a larger series. If the same rate of progress were maintained, the statistics for 1921 should show tubercular mortality rates of from $9/10 \times 9/10$ down to $6/10 \times 6/10$ of those in 1901. If anything approaching such results happened, it would be an absolutely convincing argument in favor of germ prophylaxis as against personal hygiene, since it is not conceivable that susceptibility could be thus diminished by heredity in the space of a third of a single generation nor practically possible that there could be general improve-

ments in personal hygiene acting thus rapidly in the face of condensing population and higher cost of living.

Is it not worth the trouble and expense of quarantine and disinfectant measures (using these terms broadly) to determine whether this theory is correct or not?

City	1901			1911		
	General		Tuberc.	General		Tuberc.
	Death		Death	Death		Death
	Rate	Ratio	Rate	Rate	Ratio	Rate
Paris	18.2	4.2 :1	4.32	16.7	4.6 :1	3.59
New York..	19.91	8.7 :1	2.29	15.13	8.5 :1	1.76
Boston	19.87	8.4 :1	2.36	17.08	11 :1	1.55
Philadelphia.	18.26	8.2 :1	2.23	16.50	8.8 :1	1.87
Chicago	13.93	9.8 :1	1.42	14.55	8.7 :1	1.66
London	17.24	9.5 :1	1.81	12.71	11 :1	1.14
Berlin	18.00	8.2 :1	2.18	14.65	8.2 :1	1.78

One Obstacle to Social Reform

An enlightening interview occurred recently, worth being considered seriously, although narrated as amusing. A prominent physician, unusually religious as medical men go, and unusually moral as men in general run, consulted the chief of police of a large city in regard to the elimination of houses of prostitution. "Well, you see, Doc, you and I have had ours" was the gist of the explanation why the task of cleaning out these stables could not be accomplished. There, in our opinion, is the crux of the whole situation. Speaking in average terms, the police officer, his superiors, the judge, the juryman, the attorneys, and the citizen who creates public sentiment, which is the backing of all enforcement of law, as well as the legislator who makes the law and the executive who signs it, has had or is having his. The whole machinery by which the elimination of the house of prostitution or any other social reform is to be accomplished depends upon energy obtained from firing a mixture of ingredients. These consist of the influence (1) of the morally pure, (2) of the sexually weak, (3) of the morally impure who have reformed or who have become sexually weak from normal or premature senility, (4) of the actively immoral class. We do not pretend to estimate the proportions of these various classes save to hold that the first two classes are small and the fourth quite large. What we do want to emphasize is that the third and fourth classes can lend to the reform movement no strength, except that of the hypocrites who, having had or still enjoying theirs, have no objection to gaining favor by treating less discreet

persons as criminals. And the strength due to hypocrisy is weakness. When the majority of healthy, virile men have grown up as a moral generation, they can and will, consistently demand the same standard of public virtue. But no dependence can be placed on legislation and enforcement of laws against prostitution from men who have had theirs.

A Hint From Socialism

A socialistic paper has recently given prominence to a scheme for bringing capital to terms by cornering the money of the country. Workingmen are urged not to deposit their money in banks, from which it may be loaned to capital or otherwise used in business, and not to pay any bills which they can postpone. Just how labor is to "get out from under" the anticipated and logical crash of industry is not explained. We suggest that medical workingmen who do not, on the average, earn plumber's wages, and who do not have an eight-hour day, bear in mind the second point suggested.

Hygienic and Sanitary Publicity

If we printed all the reports of the activities of the Bureau of Agriculture, of Insurance Companies, of Societies against tuberculosis, cancer, the social evil, etc., and of various health departments, there would be no room for anything else. We are in hearty sympathy with the general plan of lay instruction along hygienic and sanitary lines, and, for the most part, with its details of execution, but we feel that a medical journal should deal mainly with strictly scientific and professional problems. The excellent results in the general prolongation of life, and particularly in that of policy holders, suggest two subjects for further investigation. Should not the premiums be reduced, and should not some provision be made by some authority for the unfortunates who are not in perfect physical condition?

Keep on Knocking

One of our subscribers recently said to another, who told us: "That blamed journal takes two hours of my time now. I have to read it from cover to cover." Don't forget the advertising pages and don't forget to mention this or any other journal in writing to advertisers. This policy and the W. P. B. for circulars will give you better literature.

Dispensary Abuse

The recurrence in a recent issue of the *Buffalo Courier* of a description of the hanging of the three Thayers, which was one

of the gala events of early Buffalo history, reminds us that the Dispensary problem has not been discussed in this JOURNAL for a long time, and that the subject has been pretty thoroughly neglected in medical literature lately. The only thing at all new on the subject that occurs to us is, that with the present scale of wages, idleness, intemperance, shiftlessness and a prolonged idleness are the only causes that should justify application for dispensary relief or for any kind of medical charity. This statement needs one further qualification. In a considerable experience in dispensary and municipal relief work, we encountered very few cases that were deserving, taking the normal family as a unit, but the majority were deserving, taking the individual as a unit. That is to say, the majority of cases needed medical relief and were unable to pay for it, but they occurred in little children, in women whose husbands were drunkards or idlers, or in families deprived of the normal supporting head of the family.

What ought to be done in regard to dispensary abuse needs no further discussion. The pertinent question, on which we are unable to speak personally, from recent experience, is whether dispensary abuse exists in western New York, and, if it does exist, what pressure shall be applied to remedy the evil.

TOPICS OF PUBLIC INTEREST

Rats infected with plague bacilli have been caught in Seattle a mile from the water front.

WOOD ALCOHOL. The N. Y. Committee on the Prevention of Blindness has taken an interest in the suit of a young man against a Brooklyn brewery for permanent blindness due to wood alcohol fumes while varnishing the interior of a beer vat. Two of his companions were killed and, a year ago, one man was killed and one blinded in the same way at the same brewery. In co-operation with the State Factory Investigation Commission, a bill has been prepared for the State Legislature, requiring that every container of wood alcohol, under whatever trade name, shall be labeled in red, "Poison, Wood Alcohol. Do not use except where there is sufficient ventilation." Though the medical profession now well understands the insidious danger of wood alcohol, the laity needs protection and warning. This committee is doing a good work. We suggest that any physician who has had experience along this line communicate with the executive secretary, Miss Carolyn C. Van Blarcom, Room 67, 105 E. 22, New York.

AUTOMATIC TELEPHONE SERVICE. The Federal Company announces that no change in its rates nor limitation of number of messages will be made, except that the minimum rate will be \$2.00 a month.

BASEMENT LIVING ROOMS are now prohibited by law in Missouri.

THE CHRISTIAN SCIENTIST ENROLLMENT is stated at 83,500 for North America, of which 5,000 are in Canada. The *Watchword of Truth* thanks God for this small number, but there would be more reason for thankfulness if Christian Scientists did not have so much more money and social influence than the average.

COLLEGIATE WORK REQUIRED FOR MEDICAL MATRICULANTS. The University of Arkansas and the Medical College of S. C. will require a year of college study next year. The total of medical schools now requiring at least one year of college study is 79, out of a total of 106. Excluding schools that give only two-year medical courses, that are about to merge or whose existence seems doomed, the total is between 90 and 95.

WOMAN PHYSICIAN WANTED. The Presbyterian Hospital and Dispensary at Tsinanfu, North China, needs a Christian woman physician. Adequate salary, quarters, traveling expenses, etc., are promised. Apply to Wilbert B. Smith, 600 Lexington Ave., New York City.

MINE SURGEON WANTED. The U. S. Civil Service Commission announces a competition by means of verified statements of education, experience, etc., submitted by December 8. The positions carry salaries ranging from \$2400 to \$3600.

NATIONAL MEDICAL LICENSE. Representative T. L. Reilly of Connecticut has introduced a bill to authorize the President to appoint a licensing board, consisting of two members each of the army, navy and public health medical services, at salaries of \$4,000, to hold office for four years, and to have headquarters at Washington. Physicians, providing they are citizens and of good moral character, are to be licensed if they hold State licenses or if they present diplomas from recognized medical schools and fulfill the requirements of the A. M. A. A fee is to be charged in either case. The bill was referred to the committee on military affairs.

Note—A bill of this nature is desirable from many standpoints, but there are some criticisms that occur to us. In the first place, there might be objection to having the medical profession represented solely by officers of the government services. The officers selected from these services would more naturally be detailed for the special duty by the respective surgeons-general and should receive the pay of their rank, which ought to be specified and to be of the same degree for each service. If the federal license is to be granted merely on presentation of a State license, it might be more convenient to make a general provision covering this point. "Fulfillment of the requirements of the A. M. A." is somewhat vague. This Association requires for admission to membership, affiliation with State and County Societies, which necessarily follows license. While the A. M. A., through its officers, editorially and in various ways, has stood definitely for a high standard of medical education, it never has acted as a licensing body and has obviously never had direct control over licensing boards, and it is questionable whether it has ever formally adopted a standard of license in the sense implied in the bill and which could be used as a formal basis by the licensing board contemplated. Furthermore, in no spirit of disrespect, it may be pointed out that the A. M. A. is, originally, a private organization of physicians, comparatively recently incorporated under the laws of the State of Illinois, but, in this respect, not differing from hundreds of other private societies of various kinds. It is very questionable whether precedent and authority exist for recognizing its influence as a basis for legislation in this specific way, though there would be no objection to employing its standards as a model. And, finally, we fail to see how any bill of this nature can be passed by Congress, which will have the power to license a physician to practice in any given State, although the federal license might be applicable to a territory, to a ship sailing under the U. S. flag and to other strictly national subjects of control.

PREVALENCE OF VENEREAL DISEASE IN BUFFALO. The Buffalo Society of Sanitary and Moral Prophylaxis (a branch of the American Federation for Sex Hygiene) has issued a pamphlet containing valuable statistics. A letter of inquiry was mailed to each of the 670 physicians of Buffalo last year. 181 replied, of whom 122 reported cases under treatment. The total reported of gonorrhœa was 648; 519 male and 129 female. A light is shed on social conditions by the fact that 407 of the men and 76 of the women were unmarried or separated; 112 men and 53 women married. For the year 1911, 2,807 cases were reported, the ratio of approximately 4 1/3 to one case under

treatment, holding good in a general way for the various groups.

An estimate of the total for the city can scarcely be made. Nearly 100 of the physicians listed are not in active practice or are dead or removed. At least a hundred more are, on account of the nature of their work, not likely to see active venereal disease. On the other hand, latent and sequellar cases are not likely to be reported and many are not treated at all, or only inefficiently, while many treated by quacks, perhaps quite competently, would be omitted from statistics.

The statistics for syphilis were: Males under treatment, disease "acquired," 357; women, 108; "accidental infection," 20 of both sexes. 918 cases altogether were reported for 1911.

26 cases of venereal disease in children under 16 were also reported and 66 of the same for 1911.

47 per cent. of the physicians ascribed 83 per cent. of infections to clandestine prostitutes, 17 per cent. to professionals; 29 per cent. of physicians reported the infections from these two classes as equal; 24 per cent. reported 19.5 per cent. of cases due to clandestine and 79.5 per cent. to professional prostitutes.

Various other interesting statistics and opinions are cited.

Centenarians

Mrs. Sarah Cox of Malden, Mass., and Mrs. Benjamin de St. Francois of Medford, Mass., celebrated their 101st anniversaries June 12, 1913.

Mrs. Erastus Winslow died in Charlton, Mass., shortly after her hundredth birthday in May, 1913.

Mrs. Freda Bidietizky of Philadelphia was found dead in bed, July 15, 1913, aged 109.

In the Decoration Day work-horse parade of Boston was a mare 21 years old, driven by a man 61, accompanied by his father and mother aged 101 and 103 respectively.

Dr. John C. Warbrick of Chicago contributes to the *Texas Med. Jour.* of July, 1913, a discussion of the contradictory reasons to which longevity is ascribed and records the following cases:

1. Mrs. J. D., of Marshall county, Illinois; mother of ten children, is over 106 years old. She says: "Don't worry."

2. Dr. P., 100 years old and in good health; 11 children; no pain and never worries; chops and saws wood daily; walks and takes out-door exercise daily, which he says has caused him to live to a good old age.

3. Mrs. R., 106 years old; has no need of glasses and hears as well as if young; 8 children; mental faculties clear; never was sick.

4. W. J. F., 101 years old; feels just as good as at 19; only once had any severe illness; stubborn determination to reach the century mark.

5. Mrs. W., 101 years old; the eleventh child in a family of 23; 18 grew to manhood and womanhood; healthful, normal life; most of it spent in the country, to which she attributes her advanced age. Worries and strains in early days, then peace and content later.

6. E. F. runs a farm at 100 years old; gets out of bed at 5 o'clock every morning and cares for horses and cattle before breakfast; says he would not have reached 100 had he not kept from tobacco and alcohol. Is active and healthy.

7. J. M., 107 years old; always violated rules advanced to those who desire long life; fond of pipe and smokes yet; spent most of life out doors and walked a good deal.

8. E. P., 102 years old; used tobacco all life; mother lived to 105 years; father chopped wood after 102.

9. Rev. J. C., 101 years old; never was ill; eats nothing but dry bread two days old; fresh fruit and black tea; mind agile and keen. Says, "Do good and aim high and the rest will take care of itself."

10. J. H., 93 years old; retired carpet weaver; full possession of all his mental faculties; no special illness of any kind; always went to bed in good season and rose early. Simple and regular in his habits. For years worked in a small room with no ventilation; took pork and other kinds of meat; always contented and never worried; always slept well; never had a headache; never wore glasses nor smoked.

11. Mrs. W. died at age of 96; always had good health; lived in the country all of her life and never had any fads; lived plainly and had a calm mind. Never worried about her food. Use of her mental faculties to the end.

12. J. A., farmer; lived to be 91; always worked hard and had no fads. Disposition bright and cheerful; early to bed and arose early. Followed ordinary diet and had a calm mind. Mental faculties clear to the end.

13. A. S., farmer, 90 years old; worked hard and followed the usual diet, such as tea, coffee, meat and potatoes. Early to bed and arose early; no fads; mental faculties clear to end.

14. Rev. J. M., retired minister; died at 95; in full possession of all mental faculties; lived simply and on ordinary diet.

Chewed food well and had a calm mind; early to bed and arose early. No fads of any kind.

15. R. T. A., minister; 103 years old; calm mind; no fads; followed the usual diet, smoked and took coffee all of his life.

16. D. P., 100 years old; had no fads of any kind; has lived plainly all of his life and had good health; full use of mental faculties.

17. Mrs. W., 100 years old; never had any fads; lives on ordinary diet and has good health.

18. W. N., 95 years old; never had any fads.

19. J. P., died at age of 86; never had any fads. Went to bed early and arose early. Lived plainly; had a calm mind and full use of mental faculties to the end.

Asa Goodwin of Sterrett, Ala., celebrated his 106th birthday with a barbecue at which 2000 persons were present. He is described as hale and hearty.

Note—We have, from time to time, gathered reports of persons living to 100 years or more. While the statistics may be of value for future reference, we ask the judgment of our subscribers as to whether it is worth while to continue these notes.

LEGALITY OF HOUSE OF DELEGATES OF A. M. A. Dr. G. Frank Lydston of Chicago has secured a verdict from the Appellate Court of Illinois reversing the decision of the Circuit Court two years ago. Dr. Lydston's contentions are supported as follows:

"1. That the elections of the A. M. A. are illegal, being held outside of the State of Illinois, in which the association was incorporated.

"2. That the majority initial vote in the association is cast by non-members.

"3. That the delegate system of the A. M. A. robs the individual members of their right to vote as members of the association.

"4. That every member of the association is entitled to a direct vote in person or by proxy.

As we understand the matter, the first contention is purely a technicality, due fundamentally to the fact that the United States is—or, perhaps, here it would be better to say *are*—not a centralized country. The A. M. A., although a national organization, is necessarily chartered by a State. Unless some general provision is made for bodies of similar nature, probably requiring a constitutional amendment, the A. M. A. must con-

tinue to be, legally, a private corporation doing business under the laws of Illinois.

The second contention refers to the method of election of Delegates by the State societies. Assuming that, as in New York, all State societies are modeled after the A. M. A., the House of Delegates of the latter is elected by the Houses of Delegates of the former. But, the State delegates are, in turn, elected by the county societies. There might be some dispute as to whether the electors, in either case, consists of a majority who are not members of the A. M. A. This significance of Dr. Simmons's plan to make all members of State and County societies ipso facto members of the A. M. A., as they are potentially, is apparent. The ruling on this point, which may be overthrown by the Supreme Court of Illinois, seems to us, also a technical victory. Granting the advisability of the general plan of Delegate government, nothing could be fairer and more in accordance with political precedent, than the present method, especially when we remember that the ultimate electorate can and is strongly urged to carry membership in the A. M. A.

With the third and fourth contentions, which are virtually one, supported by the Court, Dr. Lydston has scored a victory of the utmost importance. We have held, from the time that the first draft of the Delegate plan of control was submitted for criticism, that it went too far from the principle of a pure democracy, although our main objection to the change was on account of the obvious intention to exclude members of the Medical Society of the State of New York, who had secured membership in other ways and who did not wish either to renounce allegiance to the parent society of the A. M. A. nor to be so inconsistent as to belong to the State Association also. We felt also that the exclusion mentioned was especially undesirable since a peaceable settlement of the controversy in New York State was already under way.

One of our reasons, aside from this immediate consideration, for adhering so far as possible to the theory of a pure democracy, was that the attendance at the A. M. A. meetings had not exceeded the number practicable for a direct vote or even for the direct transaction of business, with due allowance for the fact that the actual control of any organization always drifts naturally into the hands of a small circle, best adapted to and most interested in such matters. However, with the rulings as to the popular vote, personally or by proxy, in the State of Illinois, it becomes evident that this argument falls to the ground and that the House of Delegates affords a better means of representation than a vote largely by mail, transferring the right to proxies.

Without discussing the multitude of corollary problems involved, two thoughts obtrude themselves: 1. There ought to be national provision for the chartering and management of all institutions that are essentially national in scope. 2. There ought to be a definite, permanent membership, both in the national and State Medical Societies, obtainable by all members of the profession in good standing, without undue hardship or delay or possibility of unfairness but with sufficient requirements to insure a reasonable degree of interest and attendance. We believe that the plan formerly followed by the Medical Society of the State of New York, with minor modifications, could be permanently available, since it has demonstrated its practicability for many years, on a fairly large scale.

Now, we want to say a few plain words about the general contest, of which this suit is merely an episode. Every unbiased critic must admit that, whether the means employed have suited him or not, the A. M. A. has made great progress in the last fifteen years, both in numbers, quality of scientific work and in value of service to the individual member. And we think that it must also be admitted that this improvement has been essentially due to one man. This man has been accused of most of the political, ethical and personal crimes known. It occurs to us that justice to all and, especially, to the accused, requires a fair investigation of these charges, and of the future as well as the past and present advisability of the system of control of the A. M. A. A strongly centralized authority, even a usurpation of authority beyond that ordinarily conceded by law, has been universally recognized as necessary in critical periods of states and organizations. But it must be recognized also, and the history of the world stands back of this statement, that a centralization of authority necessary for a political or economic revolution, is a source of dissatisfaction and of danger under routine conditions. The past must be justified by the past and the future must be determined impartially on its own merits. The profession cannot long postpone a full consideration of the problems suggested, and it must enter into the consideration with a full sense both of gratitude for the past accomplishment and of duty to the opinions of the present membership.

The Board of Trustees, *Jour. A. M. A.*, November 22, publish a statement regarding this matter, denying the truth of Dr. Lydston's statements. They emphasize a point which did not impress us as important, although stated by Dr. Lydston, that the verdicts were respectively against and for forcing the State's Attorney of Cook County, Ill., to "file a petition for a mandamus against the trustees of the association." The second verdict, favorable to Dr. Lydston, has been appealed to the Supreme

Court, as Dr. Lydston admitted it might be. The Board of Trustees continue: "The decision does not in any way affect the A. M. A., but relates entirely to the duties of the State's Attorney. Should the Supreme Court sustain the decision of the Appellate Court, all it would mean would be that the State's Attorney would have to bring quo warranto proceedings against the A. M. A." ...

In a matter of this kind, we wish to be as impartial as possible. So far as we can see, Dr. Lydston has made no false statements, and while he has indulged in sarcasms and may have been unduly elated at a provisional success, it seems to us that the Trustees go too far in declaring that the statements and inferences that he had won a great decision over the A. M. A. "are without foundation in fact." Except for the point of view, the statements of the Trustees and of Dr. Lydston, agree. The ultimate question is not one of legal technicality but of a principle of representation or direct vote. This question should be decided, not by a legal battle but by referring the whole matter to the vote of the actual membership of the A. M. A.

OPENINGS FOR PHYSICIANS. The following postoffices in New York, which had physicians in 1912, are not represented in the list for 1913 New York State Directory: Barre Centre, Beechford, Carlisle, Durhamville, Ferndale, Grand Gorge, Grand Island, Hebron, Moriah Centre, New Hackensack, Olmsteadville, Piermont-on-Hudson, Plessis, Sharon, Shokan, Starkville, Stockbridge, Tuscarora, Wanakena, West Carthage, West Shokan.

ALVARENGA PRIZE ESSAY. The College of Physicians of Philadelphia will accept competitive essays up to May 1, the award to be made on July 14, amounting to about \$180. Essays must be typewritten, marked by a motto and accompanied by a sealed envelope containing the name of the author, and must be written in English or accompanied by an English translation. They should be addressed to Dr. Thomas R. Neilson, Secretary, 19 S. 22d St., Philadelphia.

ANTITOXIN LABORATORY will be erected by the New York State Health Department at Guilderland, near Albany.

AWARD BY SMITHSONIAN INSTITUTION OF HODGKINS PRIZE FOR ESSAY "ON THE RELATION OF ATMOSPHERIC AIR TO TUBERCULOSIS." The prize of \$1500 has been equally divided between Dr. Guy Hinsdale of Hot Springs, Virginia, for his paper on "Tuberculosis in Relation to Atmospheric Air," and Dr. S. Adolphus Knopf of New York City, for his treatise "On the Relation of Atmospheric Air to Tuberculosis."

ARMY MEDICAL CORPS EXAMINATIONS will be held January 19, at places to be designated with regard to convenience of applicants. Applicants must be between 22 and 30, and must have had at least one year's hospital training after graduation. Twenty-six vacancies exist. Successful candidates will be commissioned first lieutenant. The salary and allowances are approximately equivalent to a gross medical income of \$2,500. Full information can be secured by addressing the Surgeon General, U. S. Army, Washington, D. C.

FREE DISPENSARY FOR BATAVIA. By the co-operation of various institutions, a public dispensary was opened in the Masonic Temple, November 18. A dental clinic will be maintained and a medical examiner will be present to attend to needy school children.

THE N. Y. STATE VETERINARY COLLEGE celebrated the opening of its new hospital and clinical buildings for large and small animals, November 15. In 1868, Cornell University opened its doors, providing a Veterinary Department which was, in 1896, merged with the State College, provided for in the law of 1894. At this time there were 11 students. In 1913 there were 122 undergraduate students and a graduating class of 5.

SURGICAL CLINICS OF LEBANON HOSPITAL, New York City, will be held by Dr. Parker Syms on Wednesdays at 3 P. M. The medical profession is invited to attend. Announcements will be posted on the bulletin board of the New York Academy of Medicine.

A LANTERN SLIDE LECTURE ON APHASIA was given at the Buffalo State Hospital, November 18, by Dr. August Hoch, Director of the Psychiatric Institute of the State Hospitals.

EXTENSION OF CITY HEALTH ASSOCIATION IN SMALL TOWNS. Dr. Montgomery E. Leary of Rochester, at a recent meeting of rural superintendents and teachers, suggested the formation of a Monroe County Public Health Association, in affiliation with the corresponding Rochester Association, with the idea of affording pupils in rural schools the same sanitary and hygienic advantages as are now available in most large cities. As we have already pointed out, the sanitary disadvantages of condensation of population in cities have been so far counterbalanced by attention to sanitary details, that the mortality is now actually less in the average large city than in the country. To be sure, some claim that this is due to the tendency of old people to re-

main in or move to the country, but the actuality of this claim is by no means certain. Moreover, the city death rate is swollen by the tendency to bring serious medical and surgical cases to the city for treatment which inevitably fails to save life in many instances. Our attention was called to the necessity for greater attention to rural hygiene by a recent experience. We have always maintained a familiarity with the country, which has undoubtedly blunted our powers of observation. A guest, a typic city dweller, not used to the country, was driven through many miles of typic, fairly high-grade country. And, as we passed each farm house, he regularly remarked, "Pew," or words to that effect. Now, in and of itself, an offensive odor is not pathogenic and many distinctly rural odors are of vegetable or animal origin of quite innocent nature, but, speaking generally, a place that is surrounded by an offensive atmosphere, is unwholesome. An analysis of the sanitary factors of water supply, sewerage, disposition of garbage and other refuse, effects of proximity of domestic animals, ventilation, etc., applied to rural dwellings, schools, etc., after the analogy of municipal regulations, shows many sins of commission and omission that, save for the smaller chances for original human infection and the fact that they are not magnified by aggregation of large numbers, would result in the retribution of epidemic disease.

Losses in the Balkan Wars

CASUALTIES IN BATTLES.

	Killed.	Wounded.
Turks	50,000	130,000
Bulgars	50,000	120,000
Greeks	12,000	45,000
Serbs	20,000	45,000
Montegrins	5,000	10,000
Total	137,000	350,000

DEATHS FROM DISEASE.

Turks	50,000
Bulgars	10,000
Greeks	5,000
Serbs	6,000
Montegrins	2,000
Deaths among prisoners.....	4,000

DEATHS AMONG NONCOMBATANTS.

Population directly affected by war (about 6,000,000) and indirectly affected (about 20,000,000) due to massacre, disease, famine and other causes attributable to the war, about 300,000.

THE ROCHESTER STATE HOSPITAL was threatened with fire, November 19. 105 patients were promptly and safely transferred from the west wing, in which the fire started, but the fire was quickly controlled with small loss, so that the patients were soon returned to their original quarters.

Sir W. Arbuthnot Lane, Bart., the distinguished London Surgeon, and Lady Lane have been the guests of Dr. James A. MacLeod during the past week. At the invitation of Dr. Roswell Park, Sir Arbuthnot gave a clinic at the General Hospital, and there he performed the operation for which he is widely known in this country, namely, the operation for short circuiting the ileum into the sigmoid for the relief of chronic toxæmia due to static conditions in the large bowel. This operation, whether it be accompanied by the removal of the large bowel or not, has given rise to much discussion in all parts of the world, and in some parts to marked antagonism, especially so in England, where the surgeons are inclined to conservative and well established principles. It is interesting to note, however, that in the late severe illness of her Royal Highness, the Duchess of Connaught, Sir Arbuthnot was allowed by the associated surgeons on the case to perform the operation. The operation is a radical one and should be confined to cases where the indications are clearly marked out; it most certainly should only be attempted by those of wide experience in abdominal surgery. The question of the removal of the colon is a very important one, and the indications are aptly and clearly defined by Sir Arbuthnot's words, "it should be removed in addition to the short circuiting when it asks to be removed," that is, when the colon is markedly prolapsed and free; where it is extensively tied down by adhesions, due to previous operations or inflammatory attacks, it is wise not to attempt its removal but be content to perform the simpler operation of short circuiting. It is only fair to this distinguished surgeon to say that he is not indiscriminate in the performing of these radical operations and does so only after the most careful study and X-ray investigation.

WOOD ALCOHOL BLINDNESS. Cases are reported by Benoit, *La Clin. Bruxelles*, 1911, by H. H. Tyson, *Arch. of Oph.*, Sept., 1912, by Harnack, *Münch. Med. Woch.*, Sept. 3, 1912. The last emphasizes the distinction between quinine and methyl alcohol blindness, the former being due to spasm of the retinal vessels, the latter to inflammation and degeneration of the optic nerve.

OUR CONTEMPORARIES

The *Medical Review*, St. Louis, September, 1913, contains an article by Dr. John D. Bonnar of Buffalo on "Medicine as a Science."

Dr. Edward C. Hill has resigned the editorship of the *Denver Medical Times* just because he is 50 years old and had promised himself long ago to limit his attention to practice after that age. We hope to continue the management of this JOURNAL through Vol 100, which will bring us somewhat past that age.

The *Caledonian Medical Journal* of October, 1913, contains an interesting biography of Dr. David Livingston, who was born 100 years ago. Let us not forget that this great man, distinguished as an African explorer, was also a physician.

Nevada Medicine (published jointly with the *Denver Medical Times* and the *Utah Medical Journal*) calls attention to the newly established American College of Surgeons, which has just met in Chicago, and condemns the proposal to secure legislation restricting the performance of major operations to this body. The argument is based partly on the contention that 5,000 surgeons cannot do the surgical work of the country and partly on general principles of vested professional rights and democratic ideals. While one surgeon should, on the average, be sufficient for the surgical part of twenty-five average general practices, it is obvious that surgeons cannot always be properly distributed nor available. There are also obvious difficulties in drawing formal lines between the conditions requiring expert surgical skill and those properly left to the general practitioner and in establishing conditions of emergency. Granting that the College was absolutely disinterested and just in its admissions, there would still be a serious difficulty in withdrawing the general licenses to practice all branches of medicine, already in force. It would be half a century before these general licenses would lapse by death, and it is entirely possible that various changes might occur before that time which would render any such limitation of practice highly undesirable. Meantime, it would be unwise and unjust to discriminate between practitioners simply on account of the holding over of a right conferred under the present system of license. We would naturally be prejudiced in favor of requiring special license for specialized lines of medical work, but the more one looks into the matter the more difficult of solution do the problems involved in such schemes become. The present natural development by which each specialist, surgical or other-

wise, must make good as an individual, by which every practitioner is guided by his own conscience in regard to what he can and what he cannot properly undertake, and by which each patient must assume the responsibility of a wise choice of attendant, works well in the vast majority of instances, and we doubt very much whether any artificial system can improve upon it. At any rate, until the American College of Surgeons has established its right to control surgery by some years of successful existence and has done away with the prejudice quoted by actual administration of its affairs in a way satisfactory to the profession generally, it is premature even to announce any such radical change of medical licensure as is suggested. All of which does not by any means imply either personal or editorial prejudice against this body nor any lack of hope for its future.

The *American Journal of Surgery* will issue a special "Fracture Number" in January, containing articles by prominent surgeons of this country. The territory of the BUFFALO MEDICAL JOURNAL will be represented by Dr. E. S. Van Duyn of Syracuse.

PERSONALS

Announcement of removal, travel, and other matters of interest are requested. Please report errors in the listing of any physician in the State and other directories that we may co-operate with the State Society in securing a correct list.

Dr. Carl A. Blackley has been appointed medical inspector in the schools of Lockport. The Board of Education have formally demanded of the Common Council the restoration of an item of \$1200 salary, in accordance with the new State law, but vetoed by the Mayor.

Dr. Joseph C. O'Gorman of Buffalo, president of the New York State Civil Service Association, was tendered a reception at a smoker given by the Buffalo branch, October 31.

Dr. Horace Lo Grasso, Supt. of the J. N. Adam Memorial Hospital at Perrysburg, described the work of the hospital for incipient tuberculous patients at the November meeting of the Nurses' Association of Buffalo.

Dr. Harry A. Wood has removed from Buffalo to Glenwood, N. Y.

Dr. Lesser Kauffmann and Herbert M. Hill, Ph. D., of Buffalo, spent a couple of weeks hunting in the Adirondacks in November.

Dr. A. G. Pohlman, a former Buffalo boy, son of the late Prof. Julius Pohlman, has been elected head of the Dept. of Anatomy in St. Louis University.

Dr. Prescott Le Breton of Buffalo announces the removal of his office to 125 Allen street.

Dr. Max Breuer of Buffalo gave a dinner at his home on October 25, in honor of Prof. Adolph Schmidt of Halle and Dr. Goetz of Blamkenburg, Thüringen.

Dr. Frank W. Love of Buffalo has moved to 470 Linwood avenue.

Dr. George H. Westinghouse of Buffalo has recently purchased and occupied, as residence and office, the commodious house situated at 2830 Main street.

Dr. S. S. McKenzie has recently moved from Bolivar, N. Y., to 413 E. Market St., Warren, Ohio.

Dr. Henry C. Buswell of Buffalo has returned from Europe.

Major Wm. G. Bissell, M. D., of Buffalo, retiring after 25 years' service from the 74th Reg., was honored by a review of the regiment, November 25.

Dr. J. Henry Dowd of Buffalo will read a paper, by special invitation, before the New York Academy of Medicine, at the January meeting. His subject is "The Phosphatic Index, Its Relation to Diagnosis and Treatment."

Dr. Sanford H. Kinney of New York, formerly of the staff of the State Soldiers' Home at Bath, recently visited Bath.

Dr. L. G. Visscher of Los Angeles, who is making a tour of this country, spent a couple of days in Buffalo late in November. He is especially interested in gastro-enterology.

Dr. F. W. Zimmer was elected a school commissioner of Rochester.

Dr. Thos. A. Killip was re-elected a coroner of Monroe County.

Dr. G. W. Goler, Dr. Joseph Roby and Dr. Marion Craig Potter of Rochester read papers before the State Conference of Sanitary Officers at Utica, November 19 to 21.

Dr. Hugh Cabot of Boston was in Rochester November 14 and 15 and spoke on "Sex Hygiene"—when, where and how shall sex instruction be given?

OBITUARIES

Readers are requested to report promptly the death of all physicians in Western New York, or former residents of this region, or graduates of any medical school in Western New York and to notify the families of the deceased of our desire to publish adequate obituary notices.

Dr. Charles F. Durand, Toronto, 1887, died in Toronto, Nov. 10, of pneumonia. Dr. Durand was for many years in private practice in Buffalo, and, subsequently, in charge of the isolation hospital under the direction of the department of health. Last year he moved to Toronto.

Dr. Edwin C. Reames, Buffalo, 1895, died at his home in Canastota, September 25, aged 43, of nephritis.

Dr. Lewis Blanchard, Buffalo, 1866, died at his home in Edgewood, Ia., August 5.

Dr. William H. Wathen, LL.D., of Louisville, Ky., a graduate of the University of Louisville, Medical Department, in 1870, a member of the American Gynecological Society, one of the founders and for many years dean of the Kentucky School of Medicine, which, in 1908, was merged with the Medical Department of the University of Louisville, and since that time professor of abdominal surgery and gynecology in the latter institution, died at St. Anthony's Hospital, Louisville, after a short illness, on October 7, aged 67 years.

Dr. Edward Enos Hopkins, Buffalo, 1908, formerly of Rochester, died at Honeoye Falls, October 24, aged 31.

Dr. Charles McBurney, P. & S. of N. Y., 1870, the well known New York Surgeon, died at Brookline, Mass., November 7, suddenly, probably from the strain of a hunting trip. He was born at Roxbury, Mass., February 17, 1845, and was educated at the

Roxbury Latin School and Harvard University, from which he received the degree of A. B. in 1866, and of A. M., a few years later. Of his many honors and his notable achievements in surgery, especially in that of the appendix, we need not speak at length. Recently he had resided in Stockbridge, Mass., though retaining an office in New York.

Dr. Jesse S. Myer, University of Missouri, 1893, died at his home in St. Louis, October 30, aged 40. He also held a degree from the Marion Simms College of Medicine, 1896, and had studied at the Charité Hospital of Berlin. Death was due to leucocythæmia. He was a member of the Council of the American Gastro-enterological Association, editor of its Proceedings, and had, on behalf of that organization, published the life and letters of Wm. Beaumont, whose pioneer investigation on the physiology of the stomach in a case of traumatic gastrostomy were, a few years ago, presented to the Association.

SOCIETY MEETINGS

Brief reports and announcements of meetings of societies of Western New York and of those of general scope are requested from Secretaries. Copy should be on hand by the fifteenth of each month. Full transactions will be published at cost of composition.

The regular meeting of the MEDICAL SOCIETY OF THE COUNTY OF ERIE was held in Alumni Hall, University of Buffalo, on Monday evening, October 20th, 1913.

President Whitwell called the meeting to order at 8.30 o'clock.

Secretary read the minutes of the regular meeting of June 16th, 1913, and also the minutes of the Council meeting of October 7th, 1913, both of which were approved as read.

Dr. Lytle, on behalf of the Committee on Membership, presented applications, which had been favorably acted upon by the Council, as follows:

Dr. Robert King, Buffalo State Hospital, and Dr. Christopher Fletcher, also located at the same institution, provided with certificates from the Secretary of the Medical Society of the County of St. Lawrence, showing that their dues were paid for the year 1913 and that they are in good standing in said society, were duly elected to membership in the Medical Society of the County of Erie.

Dr. Frank E. Brundage, 2561 Main street, coming from the Medical Society of the County of Allegany, and provided with a certificate from said society showing him to be in good standing and with dues paid for 1913, was duly elected by transfer.

Albert F. Ostwald, 1342 Fillmore avenue, Buffalo.

Dr. Nadina R. Kavinsky, 576 Jefferson street, Buffalo, and Dr. Jennie Harper Harris, 160 Fletcher street, Tonawanda. N. Y., for whom the Secretary was directed to cast the ballot of the society, whereupon they were declared duly elected.

President Whitwell stated that nominations were now in order for the annual election, to be held on the third Monday in December, 1913.

The following nominations were then made:

Dr. John V. Woodruff for President.

Dr. Arthur W. Hurd for First Vice-President.

Dr. Franklin W. Barrows for Second Vice-President.

Dr. Franklin C. Gram for Secretary.

Dr. Albert T. Lytle for Treasurer.

For Censors, the present members of the Board of Censors, as follows:

Dr. John D. Bonnar, Dr. Francis E. Fronczak, Dr. Arthur G. Bennett, Dr. Irving W. Potter, Dr. Archibald D. Carpenter.

Dr. F. Park Lewis for Chairman of the Committee on Legislation.

Dr. Henry R. Hopkins nominated Dr. P. W. Van Peyma for Chairman of the Committee on Public Health. Dr. Van Peyma declined the nomination, stating that he would be unable to serve.

Dr. Grover W. Wende then nominated Dr. Henry R. Hopkins for such office.

Dr. Thomas H. McKee nominated Dr. Grover W. Wende for Chairman of the Committee on Membership.

The following were nominated as delegates to the State Society for the years 1914-15, four of whom are to be elected:

Dr. Albert T. Lytle, Dr. Julius Ullman, Dr. Julius Richter, Dr. J. F. Whitwell, Dr. LeLancey Rochester, Dr. Franklin W. Barrows.

Nominations were then declared closed.

Dr. Edith R. Hatch then presented a paper on the subject, "Is the Teaching of Sex Hygiene Advisable in Our Public Schools?"

This paper brought forth a very lively discussion for and against the proposition, by one of the largest attended meetings that the society has had for a long time.

There were present at this discussion, on invitation, Henry P. Emerson, Superintendent of Education, and a large number of other members of the department of education. At the close of the meeting a collation was served.

FRANKLIN C. GRAM, Secretary.

The regular meeting of the BUFFALO ACADEMY OF MEDICINE, Section of Medicine, was held in the Academy Rooms, Buffalo Public Library Building, on Tuesday evening, October 14th, 1913, at 8.30 P. M.

The program included a Symposium on the Proposed Ordinance for the Suppression of Unnecessary Noises. The speakers limited to five minutes each, were an aurist, a neurologist, a member of the Automobile Club, representatives of the Police Department, the Health Commissioner and others. Open discussion followed. The meeting was presided over by Dr. H. K. DeGroat, Chairman, and T. M. Leonard, Secretary.

After the reading of the minutes, Health Commissioner Francis E. Fronczak presented the following resolution for the purpose of opening a discussion on the unnecessary noises in the city of Buffalo, asking the Academy of Medicine to concur or amend it, and give the matter their moral support. The resolution follows:

"Resolved, That Section 10-A of Chapter XXV of the City Ordinances is hereby amended by adding the following:

No person, firm or corporation shall operate or cause to be operated, any machine, motor, engine, car, fan or other device which produces or causes any unnecessary noise or noises. And no person shall cause, create, produce or permit any person or anything in his or her control to produce any unnecessary noise, thereby disturbing the peace, quiet and comfort of persons in any neighborhood.

In all cases, the opinion of the Health Commissioner of the City, or his duly appointed agent, shall determine whether any given noise is unnecessary or is such as to disturb the quiet or comfort of persons in any neighborhood.

Any person guilty of making, causing or permitting any person or anything in his or her control to produce any unnecessary noise, thereby disturbing the peace, quiet, and comfort of any persons, shall be liable to the penalties mentioned in this Section."

The subject was fully discussed by Dr. Lucien Howe, who, from the point of an aurist, spoke on the influence on the nervous system through the ear splitting noises. Dr. Henry R. Hopkins, as Chairman of the Public Health Commission of the County Medical Society, Dr. DeLancey Rochester and Dr. Charles R. Jewett, from the general medical section, and Dr. J. W. Putnam from the standpoint of a neurologist; U. S. Thomas, representing the Automobile Club, spoke of the noises produced by the owners of automobiles and chauffeurs; Michael Regan, Superintendent of Police, presented a paper on the regulation of unnecessary noises by the police, calling special attention to the following Sections of Chapter 9: Sections 7, 9, 15, 19 and 20.

Section 7 reading as follows:

"Every person firing a cannon within the City, unless by permission of the Superintendent of Police, shall forfeit the penalty of \$25.00; and there shall be no hunting or shooting with guns or firearms within the City unless by permission in writing of the Mayor of said City."

Section 9:

"No person shall ring any bell, blow any horn, make any public outcry, at or for any public sale, auction or vendue, or any private sale, or attract attention to or procure passengers for any cab, hack, hackney, coach or omnibus, in or upon any street, sidewalk or any other public place in the City."

Section 15:

"No person or persons shall, without permission of the Mayor, play upon any hand-organ, barrel-organ, barrel-accordion, barrel-piano, hurdy-gurdy, or other musical or wind instrument upon any street, sidewalk, crosswalk, dock, wharf, or any public ground within the City; nor take any part in or accompany any procession or company wherein such instruments, or any of them shall be played, or such singing, shouting or other such noise shall take place. This section shall not apply to military companies belonging to the National Guard, nor to regularly chartered civic or religious societies or orders, nor to funeral processions."

Section 19:

"No person, firm or corporation owning or controlling any engine or boiler, attached to which is a steam whistle, shall permit such whistle to be blown within the limits of the City, except upon vessels, crafts or floats in Buffalo Harbor and river and the waters connected therewith; nor shall any such vessel, craft or float use such whistle except for the purpose of giving the necessary marine signals. Any person, firm or corporation violating the provisions of this section shall be subject to a penalty of \$10 for each and every offense."

Section 20:

"No person shall ring any church bell or other bell, when, on account of illness in the neighborhood, such ringing is forbidden by the Board of Health, under a penalty of \$5 for each and every offense."

Speaking further, Superintendent Regan said: "No city can be absolutely noiseless. And the faster the city grows, the louder the noise, but there are many unnecessary noises about the city which should be stopped.

I don't believe that an employee of a railroad should be allowed to operate a whistle or allow steam to escape from a locomotive within the City unless for signal purposes. I believe the whistling is overdone.

The same applies, I believe, to boats. An ordinance should be passed prohibiting engineers from blowing whistles on tugs except for bridge and boat signals. The ordinance should be worded so that those arrested could not dodge the word 'signal.'

Railroad roadbeds, if properly laid, will prevent the awful noise and rattle on car lines which we have in some parts of the City. Then there is the unnecessary noise made by automobiles. Many have loud whistles and horns."

Health Commissioner Fronczak closed the discussion in a lengthy address, calling attention to the fact that in the nine different bureaus of the Department of Health, there are received annually tens of thousands of complaints of which a great number of them are against noises of various kinds, among them being the followings: Exhaust from gas and steam engines, exhaust or electric fans, flat car wheels, defective street car tracks, switches, uneven joints, etc.; machinery in bakeries, machinery in silk mills, drop and trip hammers, forging and boiler shops, machine shops, brewing machinery, manufacturers operating at night, roosters crowing, parrots on front verandas, steam whistles, church bells, automobile garages, automobile horns, whistles and exhausts, automobile manufacturers, the blowing of horns, piano playing, singing at night, the barking of dogs, cat fights, street carousing, New Year celebrating, practicing on band instruments, children skating on sidewalks, children running wagons, tricycles, velocipedes and other motion devices, children whistling and shouting, hammering on anvils, the squeaking of machinery, crying children, whistles on peanut roasters, etc., etc.

The proposed ordinance is for the purpose of putting all the complaints under one responsible authority, while at the present time they are divided between the Police, Street and Health Departments, Mayor's office, the Park Department, inspectors of boilers, the Common Council and still others, and there is decidedly too much of a division of responsibility.

Some of the city judges do not enforce the law, but on the contrary, give license to the offenders by calling them "dam fool ordinances." When the New Year is welcomed in at midnight, sometimes between fifty and seventy-five complaints come to the Health Commissioner personally, asking him to stop the unnecessary noises—whistles blowing, bells ringing, etc.

The entire subject matter was referred to the Council of the Academy to be considered before being presented at a stated meeting of the Academy.

BUFFALO ACADEMY OF MEDICINE. October 25, a special meeting was held at the Buffalo Club. Prof. Dr. Adolph Schmidt of the University of Halle, presented a comprehensive paper on Hyper-

chlorhydria, which is promised for publication in this journal. A collation was served.

A stated meeting of the Academy was held November 5, at which Dr. John F. Fairbairn gave a paper on Acute Sinusitis, representing the Surgical Section. A committee was appointed to consider a place of meeting for the future, either in rented quarters or in a permanent home owned by the Academy, as might seem best.

The Medical Section met November 11, Drs. Eli H. Long and Karl F. Eschelmann demonstrating the use of the Sippy dilator on a case of cardiospasm of thirty years duration, and Dr. De Lancey Rochester reading a paper on Angina Pectoris, which is promised for publication in this journal.

The Section of Obstetrics and Gynæcology met November 18. Dr. F. C. Goldsborough showed a specimen of Perforation of Pregnant Uterus with Curette. Dr. W. Wayne Babcock of Philadelphia read a paper on Spinal Anæsthesia, Dr. Max C. Breuer leading the discussion.

THE MEDICAL ASSOCIATION OF CENTRAL NEW YORK held its 45th annual meeting in Auburn, October 30, visiting members being entertained at luncheon by the Cayuga County Medical Society. The program was as follows:

1. President's Address—Louis F. O'Neill, M. D., Auburn.
2. The Treatment of Infantile Paralysis—Howard L. Prince, M. D., Rochester.
3. Tubercular Adenitis—George Price, M. D., Syracuse.
4. Treatment of Strangulated Hernia, with Report of Two Unusual Cases—Frederick Flaherty, M. D., Syracuse.
5. Injuries to Wrist Joint, Diagnosis and Treatment—C. E. Coon, M. D., Syracuse.
- Lunch.
- Business Session.
6. Medical Quackery in the Public Press—Samuel Hopkins Adams, Auburn.
7. The Purpose and Scope of the New State Health Law—William A. Howe, M. D., Phelps.
8. Diet in Health and Disease—Charles Clyde Sutter, M. D., Rochester.
9. The Choice of Anæsthetics with Special Reference to Local and Combination Anæsthesia—Martin B. Tinker, M. D., Ithaca.
10. Hair Balls in the Stomach and Intestine—Ledra Heazlitt, M. D., Auburn.
11. The Present Status of Physical Therepeutics—A. H. Brown, M. D., Auburn.

Dr. M. Allen Richter was the essayist of the evening at the November meeting of the Medical Surgical League. His paper, entitled, "Office Dispensing; a Practical Demonstration," was a valuable lesson in pharmacy.

On November 19th, Col. Robert Henry Elliot, Supt. of the Government Ophthalmic Hospital at Madras, India, visited Buffalo as the guest of the Ophthalmological Club.

Col. Elliot has spent many years in ophthalmic service in India and has done more than all other surgeons combined to develop and popularize the operation of trephining the eye for the relief of glaucoma. Under Col. Elliot's leadership this operation is largely supplanting the older operation of iridectomy for the relief of intraocular tension, and from its very favorable results bids fair to become the operation of choice in the general surgical treatment of acute and chronic glaucoma.

Col. Elliot made his present visit to America at the invitation of the American Academy of Ophthalmology and Oto-Laryngology, and addressed a meeting of the Academy at Chattanooga last month on the subject of Sclero-Corneal Trephining.

On his visit to Buffalo he held a Surgical Clinic at the Buffalo General Hospital and demonstrated his operation on several cases of glaucoma. A large number of Ophthalmologists of Buffalo and Western New York were present at the Clinic.

In the evening the Buffalo Ophthalmological Club gave a dinner at the Saturn Club in honor of Col. Elliot.

THE HOSPITAL MEDICAL SOCIETY OF ROCHESTER has the following program of meetings:

December 4—Results of Treatment in Rochester Open-Air School—John Aikman.

December 18—The Annual Meeting—William H. Sutherland.

THE ROCHESTER PATHOLOGICAL SOCIETY has the following program of meetings: November 13, Alvah C. Remington; November 28, William G. Bissell, Buffalo, N. Y.; December 11, Richard Moore; December 23, R. C. Harris.

THE MONROE COUNTY MEDICAL SOCIETY will hold its annual meeting December 16, 1913. There will be an election of officers and an address by Dr. C. R. Witherspoon, the retiring president.

THE ROCHESTER ACADEMY OF MEDICINE held its meeting on November 12, 1913, and Dr. F. C. Goldsborough of Buffalo read a paper on "Retroposition in the Puerperium." The next regular meeting is to be held on December 10, 1913.

THE BLACKWELL MEDICAL SOCIETY of Rochester has the following program of meetings: November 13, Dr. K. L. Daly on "Preventable Diseases"; December 11, Dr. M. May Allen, subject not announced.

CORRESPONDENCE.

This department is intended for the presentation of news and views not coming within the scope of other departments, and particularly to afford opportunity for discussion and criticism of views elsewhere expressed.

Berlin Letter

Berlin, October 26, 1913.

There are now about sixty American physicians working in the clinics here. The following from our neighborhood:

Dr. Henry Buswell, Buffalo; Dr. A. A. Mitten, Buffalo; Dr. Douglas Arnold, Buffalo; Dr. E. C. Koenig, North Tonawanda, N. Y.; Dr. L. B. Amsbry, Utica, N. Y.; Dr. C. Haase, Elmira, N. Y.

At a meeting of the Anglo-American Medical Association, held on October 25, 1913, the following officers were elected:

President, Dr. F. B. Mowbray, Hamilton, Canada.

Vice-President, Dr. Charles Haase, Elmira, N. Y.

Secretary, Dr. Douglas Arnold, Buffalo, N. Y.

Treasurer, J. J. Reilly, St. Louis, Mo.

Prof. Körte gave a lecture on "Surgical Treatment of Pancreatic Tumors and Inflammations."

On October 27, 1913, Prof. Dr. Schleich, in Prof. Kraus's clinic, showed about forty cases that had been treated with Friedmann's "tuberculosis serum." They were cases of bone and gland tuberculosis. Many of the cases of bone tuberculosis were demonstrated with X-ray plates taken at various stages of the treatment. The cases had improved or were free from all signs and symptoms. In many of the cases various other methods had been tried with no improvement. These patients had been treated by Dr. Schleich. Prof. Kraus (and there is no better medical man in Germany) has been using F.'s germs for the past two months. He has given about 200 injections. He did not care to express definite opinion, but did say that it had done no harm to any of his cases and that he was inclined to look favorably upon it.

Dr. Friedmann was called upon to talk, and he said "he wished the medical profession would forget the past and carefully try

his method out. They would be glad to teach the method to any physician free of charge.

Am pleased to see the BUFFALO MEDICAL JOURNAL at the A. A. M. A. Club Rooms.

Best wishes,

CHARLES HAASE,

Luisen Platz II.

BOOK REVIEWS

Books mentioned may be inspected at and ordered through this office. So far as possible, books received in any month will be reviewed in the issue of the second month following.

DIAGNOSIS OF THE MALIGNANT TUMORS OF THE ABDOMINAL VISCERA. Rudolph Schmidt, Professor of Medicine, University of Innsbruck. Authorized English version by Joseph Burke, Sc. D., M. D., attending surgeon Buffalo Hospital of the Sisters of Charity, Consulting Surgeon Emergency Hospital, Buffalo, N. Y. Rebman Co., Herald Square Building, New York City. Cloth, \$4.00.

To those members of the medical profession who are unfamiliar with the German language, this English version of Professor Schmidt's work is particularly welcome. The occult pathology of the abdominal cavity in its protean and mysterious phases is herein brought under the calcium and focussed into a state of comparative lucidity. Besides numerous original and trustworthy signs and tests, especial stress is placed upon the logical evolution of the patient's story in differentiating between incipient carcinoma (an immediate problem for the surgeon) and various benign and symptomatic pathologies which belong distinctly to the domain of the internist. As Schmidt so aptly says: "To choose the right path between these two extremes of possible error belongs to the most difficult problems of internal medicine."

Each chapter emphasizes the import of its predecessor, but the one on "Case Histories" is absorbing in its interest—the analogue of Murphy's surgical clinics. To the American who has stood at the bedside in the Allgemeines Krankenhaus and listened to the analysis of an obscure abdominal lesion by Schmidt, no word expresses this clinician's acumen and intuition better than that of the translator "uncanny."

The "uebersetzung"—unlike many others—holds all the spirit and force of the original.

Dr. Burke, by the three years of intimate association in his earlier practice with Neusser and Schmidt, has absorbed the ratio-cination habit from these past-masters, and he retains and manifests Schmidt's deductive principles throughout this most interesting translation.

Of added importance in this connection is the fact that Dr Burke has—for the past ten years—been substantiating the anticipated findings of Schmidt as outlined in his "suspicious factors and differential diagnosis" by his own counter findings in an extensive surgical clinic.

This book addresses itself most directly to the physician who, by the early recognition of malignancy, would add years to the span of human life.

APPLIED PATHOLOGY IN DIAGNOSIS AND TREATMENT. Julius M. Bernstein, M. B., D. P. H., M. R. C. P., London published by the University of London Press, represented by American Branch of Oxford University Press, 35 W. 32, New York; 395 pages, 5 colored plates, 46 drawings; \$3.75.

This is a very useful work dealing with microscopy, bacteriology, many of the modern serum reactions, diagnostic and therapeutic and the like.

MEDICAL DIAGNOSIS—A Practical Treatise for Students and Practitioners, by the late John H. Musser, M. D., LL. D., of Philadelphia, sixth edition revised by John H. Musser, Jr., B. S., M. D.; published by Lea & Febiger, Philadelphia and New York; 793 pages, 196 engravings and 27 colored plates.

Having personally followed the teaching of the late Dr. Musser, this work is a reminder of pleasant days spent in Philadelphia. His son, while ably conducting the work of revision necessary for every text book in these days of rapid advancement of medical science, has preserved the original text so far as possible. The book begins with a general discussion of diagnostic methods, including history taking. The second section covers various symptoms, such as pain, dysphagia, diarrhoea, speech, etc. The third section of 130 pages deals with what is technically termed inspection and some other superficial methods, well grouped under the term "observation." We call especial attention to this section, since it recognizes the value of older methods of detection of disease and tends to inculcate that art of medical diagnosis, which we admire in the great men of medical history and which we are so prone to neglect at present. Sections on physical and laboratory diagnosis follow. Part II, Special Diagnosis, is

classified according to Infestions, diseases due to Animal Parasites, Intoxications, Metabolic Diseases, and the various systems and organs.

ANATOMY, DESCRIPTIVE AND APPLIED, by Henry Gray, F. R. S., New English Edition, with the Basle Anatomic Nomenclature in English, by Henry Howden, M. A., M. B., C. M., Professor of Anatomy in the University of Durham, Eng. Published by Lea & Febiger, Philadelphia and New York; 1407 pages, 1126 engravings; \$6.00 cloth, \$7.00 leather.

In the October issue we reviewed the corresponding American edition. The difference between the two can best be given in Prof. Howden's words: "The outstanding modification in the text of this edition is the use of the Basle nomenclature Where the Basle nomenclature differs materially from the older terminology, the latter has been added in brackets and for further convenience, a glossary is appended showing (a) the terms adopted in the text, (b) the Basle, and (c) the old terminology." The paragraphs on surface anatomy have been placed together to form a separate chapter, and the section on histology has been shortened by describing the complex tissues along with the organs to which they relate. Some differences in the new illustrations occur also. We note the general adoption of metric units, the absence of the u from color, and, indeed, the only expression that suggests that this is an English edition, is the author's use of the word "outstanding" in the passage quoted from the preface, in a sense quite obvious and correct but very different from that in which Americans usually employ the word. Like the corresponding American edition, this work is a magnificent modernization of a classic medical book and we are at a loss to choose between them.

MORTALITY STATISTICS, 1910. Eleventh Annual Report of the Bureau of the Census, Dept. of Agriculture, Wm. J. Harris, Director, prepared under the supervision of Cressy L. Wilbur, M. D., Chief Statistician for Vital Statistics.

This volume, in which mortality statistics can be directly compared with those of population, without estimating the latter, is especially satisfactory as a basis of various studies. Perhaps on this account the mortality rate (15:1000 population) is slightly higher than for the preceding two years but lower by 1.2 than in the average for 1901-5. The average age at death is 38.1 for males, 39.4 for females, general average 38.7, as compared with 35.2 for 1900. No significant difference in conditions

occurs to us to modify the conclusion that hygienic and sanitary methods have really prolonged human life by an average of $3\frac{1}{2}$ years in the last decade. The alarm over the increase of cancer so generally expressed, ought to be mitigated by the fact that the average age of death is 53.8 for cancer of the female genitals and from 57.7 to 70 for other specified locations. The same general explanation is more or less applicable to other causes of death that have shown a marked increase in the last generation, namely, that a greater number of the population live to a vulnerable age.

UNIVERSITY OF THE STATE OF NEW YORK BULLETIN. Museum Bulletin No. 164, Ninth Annual Report of the Director of the Science Division, published in book form at Albany by the State Education Department.

This volume contains a general description of the museum and its educational work and reports in geology, botany, entomology, zoology, archæology, etc. In the last we note an illustrated description of a beautiful collection of slate knives, of Eskimo origin, found at Glen Lake and donated to the museum by Dr. Albert Vander Veer of Albany.

ESSENTIALS OF PRESCRIPTION WRITING. By Cary Eggleston, M. D., Instructor in Pharmacology, Cornell University Medical College, New York City. 32 mo. of 115 pages; W. B. Saunders Company, 1913; cloth, \$1.00 net.

This is a very convenient little book of pocket size, containing the usual information, well classified. Just as an illustration of the fact that experienced physicians, as well as medical students, need this work, we acknowledge with due humility that we have just learned from it that we ought to have written "oleum theobromatis" instead of oleum theobromæ, for the past twenty-five years.

A CLINICAL MANUAL OF MENTAL DISEASES. By Francis X. Dercum, M. D., Ph. D., Professor of Nervous and Mental Diseases, Jefferson Medical College, Philadelphia. Octavo of 425 pages. Philadelphia and London: W. B. Saunders Company, 1913; cloth, \$3.00 net.

We welcome this work from the pen of one of the best teachers that we ever had. It is based on the author's lecture course, and, while simple, is thorough. The eminently sane viewpoint of the author is well shown by this quotation from the preface: "In view of the recrudescence within recent years of speculative and metaphysical psychiatry, it may seem an act of temerity

to present the subject from the clinical point of view” It is well that someone has had this temerity, and no one is better prepared than the author to discuss insanity as a diseased state, requiring the services of a physician and not a psychologist.

POCKET CYCLOPEDIA OF MEDICINE AND SURGERY, Gould & Pyle, second edition, revised and enlarged by R. J. E. Scott, M. A., B. C. L., M. D., published by P. Blakiston, Son & Co., Philadelphia; illustrated; \$1.00.

The masterly skill of George M. Gould as a lexicographer and compiler was ably seconded by Dr. Pyle and Dr. Scott, has caught the spirit of the original authors, and, while bringing the work up to modern requirements, he has not spoiled it by too much editing. The work is a good deal more than a dictionary. It contains tables and illustrations that condense an almost incredible amount of technical knowledge in small compass, while the publisher's art has reduced the weight of paper to a minimum without sacrificing clearness of print. While the present work makes no pretense of supplying the demands of a reference library, it is just what is needed as a pocket companion, particularly in the trying early years of practice when the physician so often wishes to refresh his memory, and, without reference to experience in traveling when baggage must be condensed.

DISEASES OF THE SKIN. Including the Ex-Anthemata, for use of General Practitioners and advanced Students. By Frederick M. Dearborn, A. B., M. D., Professor of Dermatology in the New York Homopathic Medical College and Flower Hospital. 230 illustrations in the text; 551 large 8 vo. pages; cloth, \$5.00 net; postage, 30 cents. Philadelphia: Boericke & Tafel, 1913.

The author first discusses the histology of the skin and its appendages, then gives a systematic description of skin lesions in general, of etiologic factors, methods of diagnosis, classification, etc. The systematic discussion of individual diseases follows with illustrations. So far as external treatment and the use of imponderable agents are concerned, the author's homeopathic affiliations do not seem to be of influence and the indications for internal treatment are stated in very general terms, without dosage or specification of preparations. Under the general category of symptomatic treatment, he gives a considerable list of homeopathic remedies with potencies to be used, and, after

each drug, the names of the diseases in which it is applicable. This impresses us as indicating a commendable loyalty to his own school of practice, joined with a broad view of the general problems of therapeutics.

THE PRACTICAL MEDICINE SERIES, Vol. 6, General Medicine; 355 pages; \$1.50. The entire series of ten volumes is sold for \$10.00. The general editor is Charles L. Mix, A. M., M. D.; the editors of this volume are Frank Billings, M. S., M. D., and J. H. Salisbury, A. M., M. D., all of Chicago. Published by the Year Book Publishers, Chicago.

The wide range of subjects covered in a review of current literature, renders it difficult to select any particular point for discussion. However, the present volume deals mainly with infections and gastro-enterology. Both for reference and in reviewing rapidly the advances in these branches of medicine, the volume is very useful. We strongly advise, however, the purchase of the entire series.

OBSTETRICS. A Manual for Students and Practitioners. By W. P. Manton, M. D., Professor of Obstetrics and Clinical Gynecology, Detroit College of Medicine, Detroit, Mich. Second edition, revised and enlarged; including selected list of State Board Examination Questions. 12mo, 292 pages, with 97 engravings. Cloth, \$1.00 net. Lea & Febiger, Publishers, Philadelphia and New York, 1913.

This is one of the red-cloth, white-lettered, Medical Epitome Series. While avowedly prepared mainly for preparation for examinations, the subject is treated in a descriptive manner, each chapter being followed by a series of unanswered questions, which will suggest to the student whether he has mastered that part of the subject. This arrangement imposes a sufficient amount of labor to impress forgotten points upon the memory, without requiring one to turn back over the entire book. This is a fair compromise between the question and answer method of the usual quiz compend and the purely didactic text book. It should not be forgotten that, even with no examination in prospect, it is a good plan for the practicing physician to brush up occasionally, on an entire subject, getting a bird's eye view of it. Journal literature necessarily covers the field of medicine unsystematically and deals mainly with new or controversial topics. On the other hand, more ambitious medical books tend to deal more and more exhaustively with some single subject. Epitomes fix in the mind the general features of a subject, and,

so to speak, give a basis of orientation for the details acquired from more highly specialized discussions.

MEDICAL DIRECTORY OF NEW YORK, NEW JERSEY AND CONNECTICUT, published by the Medical Society of the State of New York. Vol. 15, issued September 20, 1913. The publication committee has, with its usual modesty, announced no names and it asks for corrections, not for words of appreciation. But every member of the Society ought to feel grateful for the great care bestowed on this work.

17,958 physicians are listed—13,777 in New York, 2,685 in New Jersey, 1,396 in Connecticut, representing an increase of 81, 11 and 2 for the respective States. The physicians of Greater New York City number 7,427, a gain of 62, those of the rest of the State, 6,350, a gain of 19. These increases are insignificant in comparison with a gain in population for the State of New York of about 180,000 a year, but the report is not so favorable as last year, when an actual decrease was noted.

For Buffalo, the following statistics may be of interest. The 1912 directory listed 703 names, to which four were added and from which 28 were subtracted, immediately—net 679. The present directory lists 698 names, to which one is to be added and from which 36 are to be subtracted—net 663. Twenty-four new names occur in the present list: 6 of internes in hospitals, 17 of new practitioners and 1 of a local office by a suburban resident. The subtractions mentioned include one recently deceased and two known to have moved from the city, and medical graduates who are retired or who are engaged in other occupations, as teaching, dentistry, pharmacy and, in the case of several ladies, managing other physicians and their homes.

We propose a slogan for the medical profession of Buffalo—500,000 people, 500 doctors—but we make this suggestion with an assurance of peaceable intentions.

The number of physicians who reform is surprising. In one day we recently met, socially or on business, four men still young, who had abandoned practice. Every little while we are surprised to learn that some business acquaintance has a dust-covered medical diploma.

PROCEEDINGS OF THE ROYAL SOCIETY OF MEDICINE, Vol. 6, No. 9, July 1913. Published by Longmans, Green & Co., London and New York. Price, 7/6d.

The various section meetings are reproduced, the multiplicity of topics rendering a review difficult. The general consideration of Balneology and Climalogy impresses us as the part of the work which will afford the most new light for our readers.

A JOURNEY TO THE EARTH'S INTERIOR OR HAVE THE POLES REALLY BEEN DISCOVERED? Marshall B. Gardner, Aurora, Ill. Published by the author.

The author holds the theory of a sun within the interior of the earth, with continents and water on the inner surface of the hollow sphere constituting the earth. He believes that the concavity and the convexity of the earth are united at the poles, and that the open polar sea, northward migration of arctic birds and mammals, finding of mastodons frozen in the ice, etc., indicate an open communication at the poles. The dip of the magnetic needle is similarly explained. The polar pit or polar opening has been exploited in fiction by several authors in delightful stories. Mr. Gardner's hypothesis is so alluring in many ways, practical as well as theoretic, that we are inclined to express the hope that the discoveries of the poles will prove incorrect. It occurs to us, however, that there are some hard facts in regard to gravitation that may interfere with the realization of this hope, even if we grant the liability to error of observations on latitude taken by the reputed discoverers of the poles.

HAND BOOK OF THE MENTAL HYGIENE MOVEMENT AND EXHIBIT. Published by the National Committee for mental hygiene, 50 Union Square, N. Y.; 25 pages, 31 charts; 25 cents, postpaid.

This is an interesting pamphlet, containing statistic tables, diagrams of adjustment, illustrations of lesions and information as etiology.

INDIGESTION, CONSTIPATION AND LIVER DISORDER. G. Sherman Bigg, F. R. C. S., etc., London; 168 pages; \$1.50; published by Paul B. Hoeber, 69 E. 59, N. Y.

Very briefly, the physiology of digestion and the various physical methods of investigation are described. We are pleased to note the praise bestowed on auscultatory percussion. It is scarcely "an original idea" (see essay by editor in Transactions of the Medical Society of the State of New York, 1905), but has been used more or less for half a century. While, as advised, the stomach—or other organ—may be mapped out by "gently gliding the ear piece of the stethoscope over the surface," it is usually more satisfactory to hold the ear piece stationary over the part of the organ most directly in contact with the body wall and to move the percussing finger (or tuning fork, etc.) "It is possible to mark out the exact extent of a

dilated stomach with even greater accuracy than that afforded by Röntgen rays." While admittedly an enthusiast over auscultatory percussion and allied methods of detecting visceral transonance, we think this statement requires some qualification. We were the first in America to locate the stomach by bismuth and Röntgen rays (being a few months later than Roux in publishing but acting independently) and, as the results coincided closely with those previously obtained by auscultatory percussion, we have usually adhered to the latter method, which is more convenient and devoid of danger. A good radiograph gives a more exact delineation of a stomach than auscultatory percussion and fluoroscopy with a clear screen, in favorable cases, throws light on peristalsis which cannot be obtained so strikingly by any acoustic method. But, unless one bears in mind that the radiograph is an instantaneous picture, showing marked indentations due to peristalsis, that the bismuth at any given moment does not necessarily fill the entire stomach, and makes other allowances for the bizarre shapes into which the stomach throws the bismuth, he will not get so good an idea of the general shape and size of the stomach as from auscultatory percussion, and he will diagnose hour-glass contraction, up-right stomach and various other abnormalities from purely transient distortions of a normal stomach.

Under the head of Acidity, we fail to find either methods of determining between fermentation and secretory superacidity or the sharp discrimination of therapeutics necessary.

These criticisms give a fair idea of the book in general. It is not closely analytic nor scientific in the modern sense, yet it contains many valuable suggestions for symptomatic treatment and is a good old-fashioned clinical monograph.

DIAGNOSIS OF BACTERIA AND BLOOD PARASITES. E. P. Minett, M. D., etc., Georgetown, British Guiana, published by Paul B. Hoeber, 69 E. 59, N. Y.; 80 pages; \$1.00.

This little book gives a very ingenious analytic system of examining pure cultures for the identification of bacteria; pathogenic and non-pathogenic; a general description of staining methods, and a discussion of special tests as the Wassermann, Widal, Calmette and other biologic reactions. Standardization of emulsions, methods of counting, blood culture, sterilization, post mortem examination of inoculated animals and allied subjects are then treated. The spirochæte pallida, piroplasma, Leishmann-Donovan bodies of kala-azar, malaria parasites, etc., are also described.

RADIUM, AS EMPLOYED IN THE TREATMENT OF CANCER, ANGIO-MA, KELOID, LOCAL TUBERCULOSIS, Etc. Louis Wickham, M. V. O., and Paul DeGraiss, Paris, translated by A. and A. G. Bateman, M. B., C. M., published by Paul B. Hoeber, 69 E. 59, N. Y.; 111 pages, illustrated; \$1.25.

A brief description of radium and radio-activity is given. It is stated that naked radium emits 90 per cent. of alpha rays, 9 per cent. of beta rays and 1 per cent. of gamma rays. Owing to the differences of penetration of the glass wall, the emanations as practically employed consist of 1, 90 and 2 per cent., respectively. "Cross fire" is especially considered and the appliances, reactions on tissues, etc., are described in a very practical way. It is perhaps a coincidence that the authors are ex-chiefs of the clinic and of the laboratory, respectively, of the St. Louis Hospital; and that their method of discussing the therapeutic value of radium is of the "show me" kind. The evidence submitted is most convincingly supported by photographs, though contra-indications and limitations are candidly admitted.

MODERN PROBLEMS OF BIOLOGY, Charles Sedgwick Minot, M. D., Boston, a series of lectures delivered at the University of Jena, December, 1912; published by P. Blakiston's Son & Co., Philadelphia; 124 pages; \$1.25; 53 illustrations.

We need not comment on the well deserved honor conferred on Dr. Minot in the invitation to deliver these lectures. They cover: The New Cell Doctrine, Cytomorphosis, The Doctrine of Immortality, The Development of Death, The Determination of Sex and the Notion of Life. The first two lectures deal with technical knowledge, which is rather familiar to most of our readers and scarcely susceptible of review. The lecture on Immortality will prove disappointing to those who anticipate a religious controversy, as it discusses general methods of propagation, the improbability of spontaneous generation after the original development of life, polyembryony, etc. The development of Death is a scholarly discussion of phenomena of growth and of senescence. Osler's dictum that "a man is as old as his arteries," is quoted with approval. Metschnikoff's theory of the prolongation of life by the use of sour milk is met with C. A. Herter's experiments tending to show that lactic acid fermentation has no influence on the intestinal flora. No definite conclusion is reached as to the ultimate cause or nature of death. Analogously, the Determination of sex is not discussed with reference to crude notions of influencing the sex of offspring, but with reference to the law of chance in the propagation of different animals and to the general argument between intrinsic cellular causes and those due to environment.

CANCER OF THE BREAST, Charles Barrett Lockwood, F. R. C. S., London. Published by Henry Frowde and Hodder & Stoughton, represented by the American Branch of the Oxford University Press, 35 W. 32, New York City; 234 pages, illustrated; \$3.00.

This monograph discusses clinical manifestations, the pathology of cancer and other neoplasms from which it must be differentiated and the local and complete operations, management of recurrent tumors and various matters suggested by a thorough consideration of the general subject. We miss the elaborate illustrations and detailed description of technic that would undoubtedly have been presented in an American monograph on the same subject, but, on the other hand, the general principles concerned are presented more clearly and more judiciously and what may be termed permanent knowledge of this phase of practice is not obscured by hobbies of the moment. On the whole, we are inclined to think that while the English method here illustrated does not, at first sight, impress one so overwhelmingly with the erudition of the author and the enterprise of the publisher, the practical value of the book is greater.

PATHOLOGY, GENERAL AND SPECIAL. A manual for Students and Practitioners. By John Stenhouse, M. A., B. Sc. (Edin.) M. B. (Tor.), formerly demonstrator of Pathology, University of Toronto, Toronto, Canada. Second edition, revised and enlarged; including selected list of State Board Examination Questions. 12mo, 278 pages, illustrated; cloth, \$1.00, net; Lea & Febiger, Publishers, Philadelphia and New York, 1913.

This is one of the red-cloth, epitome series, ably prepared to assist either the undergraduate or the graduate student confronted with an examination, and also, to enable the practitioner to obtain with little effort a bird's-eye view of the subject and a refreshing of his memory.

THE SAWYER SANATORIUM, White Oaks Farm, Marion, Ohio.

This is an elaborate descriptive pamphlet, illustrated so as to present the equipment of the institution for the treatment of Chronic nervous and mental diseases and the treatment and education of deficient and handicapped children.

PHYSICIANS' VISITING LISTS, P. Blakiston's Son & Co., Philadelphia.

These are arranged with a folding cover, envelope and pencil, containing various tables of doses, poisons, etc. Different forms

are provided, for from 25 to 100 patients a day or week, at prices from \$1.25 up. These lists are old favorites and need no introduction.

A COMPOUND OF DISEASES OF THE SKIN, Jay F. Schamberg, A. M., M. D., Philadelphia. Published by P. Blakiston's Son & Co., Philadelphia; 302 pages, illustrated; \$1.25.

This is the fifth revised edition of the familiar, brown-cloth, quiz compend, long a favorite.

FIRST BOOK OF HEALTH, a text book of personal hygiene for pupils in the lower grades, by Carl Hartman, B. A., M. D., and Lewis Bradley Bibb, B. A., M. D., Austin, Texas. Published by the World Book Co., Yonkers; 155 pages, illustrated; 35 cents.

THE HUMAN BODY AND ITS ENEMIES, idem, 358 pages, illustrated: 65 cents.

The purpose of these two books, the latter entering into many more details of physiology and sanitation than the former, is, obviously, to educate the child of from seven to twelve years so that he can keep well. The mature critic and especially one expert in physiology, bacteriology and allied sciences will find much that will amuse him, and much with which he will not entirely agree. So far as the grown man can put himself in the place of the little child, it seems to us that the authors have succeeded admirably in preparing text books that will interest and instruct such a child and that will give him or her as correct an idea of the various subjects treated as it is possible to convey to an immature brain. So far as we can judge, most adults underestimate the intelligence of children, do not realize that their craving for information might well be satisfied with systematic instruction along various scientific lines, and that their energy may be directed into channels not only useful to themselves but to the community generally.

MANUAL OF SURGERY, by Francis T. Stewart, Professor of Clinical Surgery, Jefferson Medical College. Third edition, 1913. P. Blakiston's, Son & Co.

This book of over 700 pages and 571 illustrations seems to be intended for the undergraduate very largely. It also has its value for that practitioner who wishes quickly to inform himself in a given subject. The book necessarily is not sufficiently comprehensive to give him a complete exposition of a subject, nevertheless, it has a value.

THE SURGICAL CLINICS OF JOHN B. MURPHY, M. D., at Mercy Hospital, Chicago. Volume II, Number V (October, 1913). Octavo of 174 pages, 52 illustrations. Philadelphia and London: W. B. Saunders Company, 1913. Published bi-monthly. Price, per year, paper, \$8.00; cloth, \$12.00.

The usual variety of operations are detailed. The method of taking down the remarks of an operation is not ideally successful in a precise technical operation of given steps, such as the hernia operation. Fortunately this clinic is amplified by a carefully prepared description and drawings of the Andrew's operation. The case histories are always good, being concise but very much to the point.

ABSTRACTS

COUGH AND VOMITING OF THE TUBERCULOUS. Dr. H. Paillard. After prolonged and careful investigations on this question, Dr. H. Paillard has come to conclusions which are greatly different from the classical views. About etiology, several factors have to be considered: 1st, the overloading of the stomach; big meals bring on Morton's cough, therefore the patient must be directed to adopt fragmentary feeding; 2d, the fatigue after the meals. This cough is often met with among laborers, workmen, etc., but is not frequent among well-to-do people, who can take a complete rest after the meals. 3d, the period of the disease. Morton's cough is much more common in the first stages of phtisis. 4th, the localization of the pulmonary lesions. It is very common in the common phtisis of the apices, but very rare when pleurisy has already prevented the movements of the left side of the diaphragm. 5th, the "status dyspepticus." This was considered by all the classical writers as an essential factor, but the author thinks it is a mere accessory because it is often absent, and, furthermore, cough is not at all constant in all dyspeptic patients.

There are three varieties of Morton's cough. The most typical is the variety which follows on the onset of phtisis; the cough of the later stages of the disease, less frequent, less regular, and more painful. Lastly the variety which bears no relation to meals but occurs in the morning, especially in patients with pharyngitis, and is not at all special to consumptive patients. The author insists on the feeling of breathlessness which appears after the meals and before the cough.

The pathogeny of Morton's cough has been very much discussed, and the author discusses it again. He is in favor of the mechanical origin of this cough and shows how Peter's theory

is vague and feeble. According to H. Paillard the vomiting is due, as in whooping cough, to the jolts and jerks of the cough, and in this respect he insists on the importance of the condition of the diaphragm in the causation of Morton's cough; experimentally he has noticed that the fixation of the left side of the diaphragm almost prevents vomiting, clinically he has seen that Morton's cough seldom occurs in patients whose left side of the diaphragm has been fixed by a former pleurisy. Conversely consumptive patients whose left diaphragm has normal or exaggerated movements when breathing or coughing are very often afflicted by the stiffness of the diaphragm and the "thoracic aspiration" (Arnozan) is deficient; in the second case, i.e., exaggerated movements, the stomach is directly injured and the "thoracic aspiration" is maximum.

As to treatment H. Paillard recommends to give after each meal a few whiffs of oxygen; these inhalations may be repeated if necessary; they relieve the dyspnoea which is so common after the meals and reduces the desire to increase the expansion of the thorax and diaphragm; thus the stomach is given sufficient rest to evacuate its contents at a normal rate. This method, as well as the recommendations which we have seen about etiology, has given excellent results.

SENSITIVE ALBUMIN TEST. Five c.c. of filtered urine is put into each of three test tubes. To Nos. 1 and 2 is added one c.c. of diluted acetic acid; then to No. 1 is added 5 c.c. of the following reagent:

Mercuric chloride.....	10
Citric acid.....	20
Sodium chloride.....	20
Distilled water.....	200

Tubes 2 and 3 are then filled up with water to the same height as No. 1. All three are shaken and examined against a dark background; a cloudiness in No. 1 indicates albumin; in No. 2 mucin or nucleo-albumin, the latter being confirmed by an increased cloudiness on adding water. Alkaline urine should first be acidified with nitric acid. It is stated that one part of albumin in 120,000 can be detected by this test.—Jolle: *Allgemeine Wiener Med. Zeit.*, October, 1912, per *Universal Med. Record*.

THE VALUE OF RADIOGRAPHS IN THE DIAGNOSIS OF MASTODITIS. J. M. Ingersoll, Cleveland, *Cleveland Medical Journal*, September, 1913, reports three cases, with radiographs of one, as follows:

"Case III.—Male, thirty years old. Acute otitis media for ten days. Discharge from ear gradually decreasing. Some gran-

III. Normal mastoid (right).
Small mastoid bone.

Auditory canal

Mastoid cell with
partitions between
them showing

of the bone



ulation tissue projection through the perforation in the drum membrane. Some swelling of the posterior superior part of the canal wall. No pain over the mastoid. No spontaneous nystagmus. Turning test normal. Temperature normal.

A radiograph showed that all of the mastoid cells were infected, that the sinus was exposed just below and posterior to the mastoid antrum, also that the sinus was situated well forward close to the antrum and that the mastoid bone was very small.

All of these conditions were confirmed by the operative findings. The recovery was a normal one.

The stereoscopic pictures in these cases were similar to those in many other cases and they illustrate the decided value of such pictures in determining the condition of the mastoid bone and in making a positive diagnosis of mastoiditis or exposure of the brain or the sinus by necrosis, or the exclusion of such conditions."

The cuts are reproduced by courtesy of the editorial staff.

A SIMPLE AND ACCURATE METHOD OF STANDARDIZING VACCINES. Ward Burdick, M. D., Denver (*Colorado Med.*) A solution consisting of distilled water nine parts, and Loeffler's alkaline methylene blue one part, is kept on hand. Preparatory to standardizing an emulsion, a piece of quarter-inch glass tubing is drawn out in the flame, as in making capillary pipettes for blood serum work. The glass is now scratched with a file midway on the capillary portion and carefully severed into two capillary pipettes, each obviously having a capillary aperture of exactly equal diameter. Into a watch crystal are placed, say, nine drops of filtered methylene blue solution with one of the pipettes, held in a vertical position, with just enough pressure exerted on the teat to promote the collection of the drop at the point of the pipette. To this is now added one drop of bacterial emulsion, with the other fresh pipette, held in the same manner. The drops from each pipette will be of equal size, since the capillary apertures are of the same diameter and both manipulated in the same manner. One has now in the watch crystal an exact 1-10 dilution of the bacterial emulsion; this is now allowed to stand ten or fifteen minutes, during which time the germs will become stained. With a fresh pipette the dilution is now carefully drawn up and discharged into the dish several times to insure equal distribution of germs in the mixture. With the same pipette a suitable drop of the dilution is now placed on the island of an ordinary blood counting chamber covered with a thin cover glass, and set aside for a few moments until the germs have settled on the ruled surface, where they may be counted in the same manner as are red blood corpuscles and where they will be plainly visible by reason of the methylene

blue taken up by them. The degree of dilution may be varied to suit the density of the bacterial emulsion to be standardized.

After this procedure there are no expensive pipettes to be cleaned and sterilized with difficulty. Those used in this method are dropped into the autoclave to be run up with the next steaming and discarded. The counting chamber is placed in cold lysol solution and given sufficient exposure to destroy the germs being handled, after which it is held under the cold water tap, thoroughly rinsed in running water and dried with a cotton cloth. The watch crystal is treated in the same way and dropped into cleaning fluid, where it remains until again brought into use.

PITUITARY EXTRACT. To sum up we may state that:

1. Pituitary extracts have a powerful effect in inducing and in strengthening uterine contractions.

2. The type of contractions induced is similar to that which occurs normally, although at first there may be a tendency to prolongation of the pains.

3. Such prolonged contractions result in slowing of the foetal heart, but the child is seldom in danger.

4. When given in the late part of the first and in the second stage of full time labor the polarity of the uterine contractions is not interfered with, but in early abortions and early in the first stage a simultaneous spasm of the os may occur.

5. Its chief field of usefulness is in the first and second stages of labor, when there is delay due to feebleness of the pains alone or when combined with other complications, such as malpositions of head, malpresentations, multiple pregnancy, slight narrowing of the pelvis, etc.

6. In the induction of abortion, in the treatment of abortion already in progress, and in incomplete abortion, its action is so uncertain that it is not to be recommended, except in cases where the os is widely dilated.

7. In the induction of premature labor its effects are uncertain, but if sufficient dosage be given they may be good.

8. In the induction of labor at full term and after better results are obtained than in premature cases.

9. It gives good results in many cases of post-partum hæmorrhage, but is not superior to the various preparations of ergot. It has the power of sensitising the uterus, so as to allow these preparations to act more powerfully, the combination being most effective.

10. It is a useful adjunct in the treatment of placenta prævia, used in conjunction with rupture of the membranes, the use of hydrostatic dilators, or turning.—B. P. Watson, *Can. Med. Asso. Jour.*

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Effect of Accident in Production of Gynecological Conditions

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THERE are probably no experiences more perplexing and trying to the conscientious surgeon than to be called upon, in certain cases of accidental injury, to determine the influence of the alleged injury as a cause of a physical condition or as a factor in producing subjective symptoms. Many such cases offer ground for an honest difference of opinion, and as a result a plaintiff with a just claim may fail to recover adequate damages, or as is more often the case, a corporation becomes the victim of a clever lawyer, willing medical experts and a prejudiced jury. Of all such cases there are probably none more difficult, and in which more injustice may be done plaintiff or defendant, than those in which the effect of injury upon the female pelvic organs come in question. It is in such instances that the medical expert has a wide latitude and the jury will often decide, not so much upon the merits of the case as upon the personality of the expert. It is not my purpose, however, to discuss the question of medical expert testimony, alluring as the subject is, but rather to consider some of the possible effects of accident and injury upon the female pelvic organs and the relation such injuries bear in suits to recover damages.

Usually the condition and symptoms referable to the pelvic organs are mentioned in the complaint incidentally in connection with other injuries, but occasionally the pelvic condition alone is made the basis for the damage claims.

For convenience in considering the subject, the effect of accident and injury may be classified as follows:

1. Disturbances of menstruation;
2. Production of displacements;
3. Production of abortion and premature labor;
4. Injuries by direct violence.

The conditions under the last heading will not be discussed, as they are rare, and when present are so obvious that there is seldom ground for dispute.

Disturbance of the menstrual function following accidents presents some interesting features. It is not uncommon and is often presented as evidence of injury. The character of menstrual disturbance may present many possible variations. It is seen both in the parous and the nulliparous. The character of the accident

and the degree of injury bears no direct relation to the particular disturbance that may result. A shock or fright alone, without physical injury, is sufficient. On the other hand, many of these women will associate such symptoms with actual or supposed injury to the abdomen.

Among the common effects of accident upon menstruation may be mentioned an irregular bloody discharge which begins quite promptly after the injury. This may continue, with slight remissions, over a period of weeks or it may persist uninterrupted for a shorter time. Following this the menstruation will usually recur more frequently and be more profuse than usual. An illustrative case is that of a young healthy German girl, 24 years old, of normal menstrual habit. On attempting to board a trolley car, the car suddenly started and she was thrown to the pavement. She was removed to her boarding house and she began to flow almost immediately, although it was still ten days to her normal menstrual date. The bloody discharge continued with slight intermissions and varying in amount for several weeks. During the next six months the flow recurred at irregular intervals. It was nearly a year before the normal menstrual habit was re-established. A careful physical examination of this patient three days after the accident showed a normal pelvis. Aside from a few bruises there were no evidences of injury, but the young woman for many months presented in marked degree the various phases of traumatic neurasthenia. Occasionally a woman who is menstruating at the time of the accident will suddenly cease. By far the most common effect, however, is the simple disturbance of the normal menstrual date with increased flow. The period will anticipate the normal date from a few days to a week with more profuse and lengthened flow.

Pelvic examination of these women will often show no pelvic abnormality. Sometimes there will be tenderness of uterus and ovaries suggestive of general pelvic congestion. There may be pelvic symptoms that bear this out.

It is interesting to speculate as to the cause of such flowing following accident. With an existing fibroid or polyp an explanation would be at hand, but in cases of perfectly healthy women with normal menstrual habit we are obliged to look for the cause in some other influence. In turning to shock and fright for our explanation we find much to justify our regarding these factors as the underlying cause. That mental states may influence menstrual function we have abundant clinical evidence. The mental distress of the unmarried woman who fears she may be pregnant will not infrequently delay or suppress menstruation. Great and sudden grief may do the same thing. On the other hand menstruation may be brought on by grief, great joy or sustained and unusual mental effort.

It is difficult to explain altogether satisfactorily how mental states may thus influence menstrual function. It is probably through the sympathetics and vaso-motors controlling uterine circulation. Crile has shown by his work that shock and fright will produce marked changes in the brain cells and it is not unlikely that the disturbance of the vaso-motors has its basis in pathology. Certain it is that all of these patients show to varying degree that peculiar symptom-complex which is commonly termed traumatic neurasthenia and hysteria. Undoubtedly our greater knowledge will show these conditions to be an expression of brain pathology resulting from the fright and shock, and then it will be much easier to account for the various functional disturbances that are present in these cases. In the writer's opinion the disturbances of menstrual function following accident, in the absence of any pelvic lesion, should be classified with other evidences of the neurasthenic state.

Under our second heading, displacements of the uterus, we find more tangible evidence of injury. That such effects may result requires no argument. In the etiology of retroversion Hirst places falls and jolts second to child-bearing in frequency. In a given case of retroverted uterus it is often very difficult to determine what factors are remotely or directly responsible. A retroversion occurring as the result of a fall or jolt presupposes relaxed uterine supports. Normal average supports maintain the uterus in position under the most trying circumstances but with relaxed and stretched supports, displacement may occur as the result of a trivial cause. Retroversion as a result of accident may, therefore, be more reasonably expected to be seen in women who have borne children. There are certain women, however, who have never borne children but whose uterine supports seem to be congenitally weak. These women too will require but little to throw the uterus back. In any case where accident or fall is given as a cause of retroversion one should of course be reasonably certain that the uterus was in position previously. Every physician sees cases of symptomless retroversion, and even should pelvic symptoms develop after an accident and examination discover a retroverted uterus it would not necessarily follow that the accident caused the retroversion.

The writer has been concerned in a number of litigated cases where retroversion entered into the complaint. In only one case did there seem to be reliable evidence that the uterus was in position previous to the accident. This woman while walking to her seat in a Pullman coach was thrown violently to the floor by the impact of the locomotive in making its coupling. The family physician had confined this woman twice and had had occasion to examine her pelvis shortly before her accident. At this time the uterus was in proper position, as it always had been. Two weeks after the accident, during which time the

patient was confined to her bed, the doctor examined her again and found that she had a third degree retroversion. Later at the time of my examination the uterus was still retroverted. The ability and honesty of purpose of the physician in this case can not be called into question, and no doubt the displacement occurred as the result of the fall. An instance illustrating how such a fall may cause displacement occurred in the writer's practice. A young married woman was being treated for some minor pelvic condition. As she lived only a short distance out of town she occasionally drove in for her treatment. On returning home upon one of these occasions the horse became frightened. The young woman jumped from the buggy and fell, striking on her back. Upon reaching home she was conscious of bearing down and backache. Four days later upon examination the uterus was found to be retroverted. This woman's uterus was in proper position on the day of her fall and there is no question but what the fall was wholly responsible.

The influence of retroversion as a factor with the jury in determining damages is probably very small. Obviously it should have no place in the case unless there be reliable evidence that the uterus was previously in normal position.

Prolapse is sometimes claimed to be the result of accident. A uterus whose points of attachment are weakened may and occasionally does come down as an acute prolapse following sudden straining effort. As a result of accident or injury such a prolapse must be very unusual. One woman known to the writer sued a corporation for injuries, among which, mentioned in the complaint, was a prolapse of the uterus. This woman was standing on her front steps when the defendants fired an overcharged blast opposite her house and she straightway fell off the steps. The complaint did not specify whether it was the blast *per se* or the fall that caused the prolapsus.

The effect of accident and injury upon pregnancy is frequently abortion and premature labor. There are three possible causes that may operate to produce it under these circumstances. The shock and fright acting through the sympathetics; the jars from falls and finally the effect of direct violence. In a given case it is not often easy to determine which one of these factors is responsible. The influence of the mind upon uterine contraction is frequently seen in the lying-in chamber. Fright and shock acting through the sympathetics may possibly stimulate uterine contractions, or in some manner not altogether clear it may even cause death of the foetus. The effect of jars and falls upon the pregnant uterus is much more easily understood. A slight separation of the decidua or placenta may be sufficient to induce contractions and expulsion of the uterine contents. Direct violence may act in the same way.

If miscarriage can be embodied in the complaint as due directly or indirectly to accident it usually means that the plaintiff will recover damages. A miscarriage appeals to the average jury mind. He knows what it means and he knows from hearsay and perhaps from family experience that shock and injury may produce it. The jury is therefore always ready to accept the expert's opinion upon that point. The question as to whether the miscarriage resulted from the accident is a point for the jury to decide and no matter how remote the miscarriage may be this point is usually decided in favor of the plaintiff.

Some of the suits in which miscarriage largely figures are interesting. They illustrate the views of the average jury upon the subject. A pregnant woman and her brother were driving over a bridge. The team fell partially through a defective spot. The occupants of the buggy were not thrown out or injured in any way, but the woman was much frightened. She rendered what little aid she could and then ran a considerable distance for assistance. She miscarried some time later and recovered damages from the town.

Another suit based upon somewhat similar claim was that of a pregnant woman who recovered from a street railway company for a miscarriage caused by fright. The plaintiff stood upon or near the track waiting for a car when a car, beyond control, dashed down the hill and the woman had only time to jump from its path. Although not struck she fainted from fright. She miscarried and recovered from the company. Still another successful suit was that of a woman in a railway collision. There was no claim made for injuries but later she gave birth to a premature still-born infant. The claim that the miscarriage was the result of the terror and alarm at the time of the accident was shared by the jury and the plaintiff recovered from the railroad. One other example is interesting. A pregnant woman driving over a low bridge was overturned into the ditch below because of some defect. A few weeks later a premature labor resulted in the birth of a pair of twins which lived but a few hours. The plaintiff sued and won and was compensated for the *pain and distress* she suffered as a result of the premature labor.

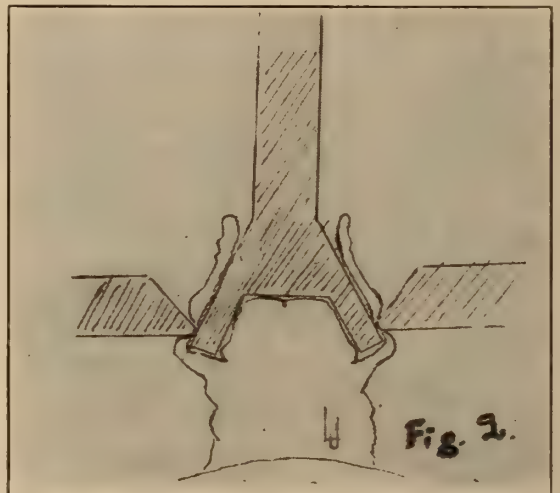
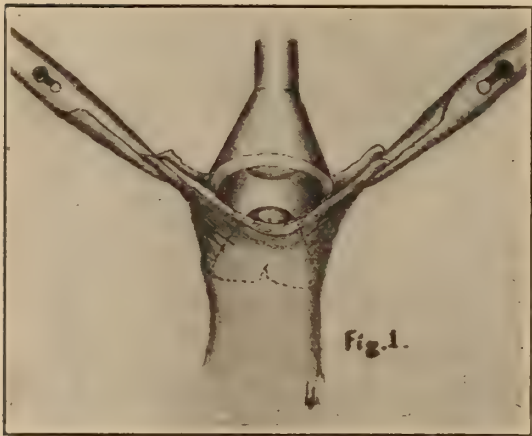
The cases quoted are taken from court records and clearly indicate how willing a jury is to compensate a woman for a miscarriage, no matter how remotely it may have been due to the accident. It is an interesting and curious fact that apparently the offspring has no value in the eyes of the law, and yet one of the most serious crimes on the calendar is the destruction of the child in utero. The woman may be compensated for the pain and suffering incident to a miscarriage but not for the loss of her offspring.

An Instrument for Circumcision

By DR. JOSEPH S. LEWIS, Buffalo, N. Y.

THAT venerable operation circumcision, usually considered no more serious than a tonsillectomy, not infrequently proves a source of grave complications at the hands of those unskilled in operative technique, and occasionally even under the best auspices. Therefore in order to provide a method which would prove more safe and simple, especially for the physician who never undertakes a more formidable operation, the writer has devised an instrument with which circumcision may be done without danger of removing too much or too little foreskin, with minimal chance for infection, and without the need of sutures.

The following observations suggested to the writer that the foreskin might be *pinched* off instead of being cut off. A



haemostat clamped on the foreskin for a few moments leaves the clamped skin in a parchment-like condition. A bone-forceps will pinch off the epidermal part of the foreskin, leaving a closed wound with little or no bleeding; but then the wound must be opened when the epidermis is drawn back in order to trim off the mucous membrane, which can not be cut off in the same way without snipping off the glans as well.

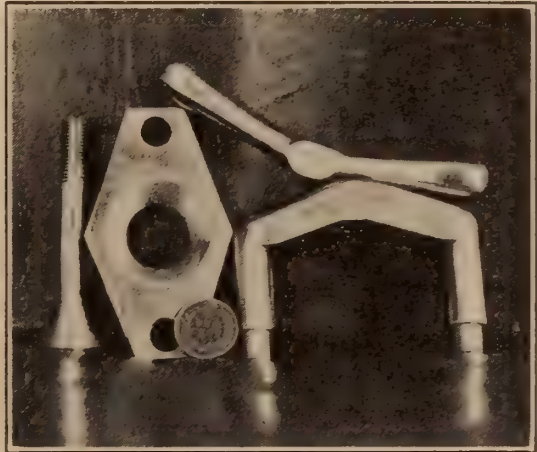
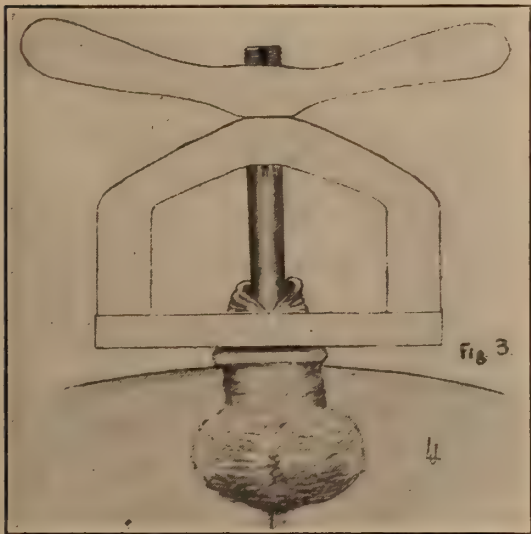
The writer two years ago designed a tubular knife against which a second tubular knife was to cut off the foreskin after it had been drawn back over the first, previously fitted over the penis. This design a certain instrument-maker kept in his shops without progress for over a year. Meanwhile another instrument, much simpler to use as well as to make, was devised, which after numerous trials seems admirably suited to its purpose. The accompanying illustrations should require only a brief interpretation to make clear the technique.

1. The foreskin is seized by its preputial portion laterally with two mosquito clamps.

2. After crushing the dorsal and ventral portions *just past the prepuce* with a haemostat, the crushed parts are cut through, which allows the foreskin to be withdrawn in order to release adhesions and remove the smegma. If the skin be sufficiently elastic a dorsal incision alone will be necessary.

3. The *bell* of the instrument is annointed with sterile vaseline, which will allow it easily to slip in place, over glans and under foreskin. (Fig. 1.) The *platform* and *key* should also be lubricated along the parts in contact during use.

4. The bell-handle is now passed through the beveled hole in the platform, while its threaded portion is passed through the hole in the *frame*, and the key is slowly turned down drawing the circumference of the bell against the flattened edge of the beveled hole with great force. (Figs. 2 and 3.)



5. The bell-handle is grooved for a projection in the frame so that the bell may not turn while the key turns. The result is that the bell is made to bite or crush the foreskin against the platform. While the key is still tight, the foreskin is cut away from bell and handle. After waiting *five* minutes the penis is released, leaving a parchment-like ribbon a millimeter in width, all around the new union of skin and mucous membrane. This ribboned edge retracts slightly in a groove, will not bleed, and should be touched with tincture of iodine. With infants it will be best to cover the penis with vaselined gauze, to be changed with each diaper.

For various sized organs there are three sizes of bell, and three equivalent platforms, all designed to fit the same key and frame. They are measured by the size of the hole in the platform, the diameters being respectively $\frac{3}{4}$ and $1\frac{1}{2}$ inches. The photograph shows the smallest platform and bell with the common frame and key, as also a copper for the sake of comparison.

Knowing of no similar instrument, the writer would name it a circumcisor. As it is not yet on the market anyone desirous of

using a like instrument may have from the writer the name of the maker. There are a few points to be emphasized if the instrument is to give satisfaction.

1. Lubricate the working parts lest they jam and make it difficult to unscrew the key.

2. In slipping the bell under the foreskin fit it so that it conforms to the ellipse of the corona. The edge of the bell therefore will be oblique, not at right angles, to the shaft of the penis.

3. Turn the key down with force as far as it will go, to form the ribbon.

4. After cutting the foreskin loose, leave the key turned down tight for at least five minutes to assure permanence of the ribbon. If released too soon there is danger of late separation of the pinched edge requiring the application of sutures. Except with infants, no dressing will be needed unless it be a square flap of gauze suspended from the abdomen by a strip of adhesive plaster.

11 Irving Place.

RECTAL ADMINISTRATION OF SALVARSAN. Rajat, *Ann. des mal ven.*, Nov., 1912, advocates he has employed this method in 125 cases and found the result as satisfactory as in the intravenous method without any of the dangers connected with the latter. The salvarsan is added to 120 c.c. of artificial serum in a solution of 5:1000. Soda may be added to increase the solubility of the salvarsan. The injection is preceded by an enema and should be given through a high rectal tube to insure its retention for at least thirty-six hours.

A CHEMICAL BASIS FOR CANCER. Dr. Howard W. Nowell, in *Boston Medical and Surgical Journal*, June 5, 1913, reports the isolation of a crystalline end product of carcinoma, highly toxic in character and of specific lethal characteristics.

Injectations into rabbits produces carcinomatous lesions with metastatic foci and characteristic cachexia. Repeated injections of very small doses immunized a large number of rabbits, and serum from these animals injected into non-immune ones antagonized the toxic action of the tumor substances.

MALE MENSTRUATION. Dr. Guy P. Levering, Lafayette, Ind., *Ind. Med. Jour.*, Oct., 1913, reports a case in a man aged 34, half negro, a quarter Indian and a quarter French, normal except for sexual apathy and the occurrence of vesical hemorrhages every four weeks. Exploratory incision revealed no trace of internal female organs and apparently no prostate. The testicles were removed and though stated to be true male glands, the haemorrhages were relieved.

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The Income Tax.

We feel that a discussion of this tax is allowable in a medical journal, both as a matter of public interest and because it applies directly to some physicians though not to as large a proportion of the profession as might be desired. We have, indeed, been asked specifically for advice on the matter by several acquaintances.

We do not share the antagonism which many have expressed regarding this tax. Indirect taxation is popular because it is not felt, or when felt it strikes individually, perhaps hard and unjustly, but the individual complaint is lost on the ears of the general public. We believe that every tax should be felt and that it should bear as evenly as possible on the public. For instance, when a man buys a box of cigars in Holland for two cents apiece, pays a duty of five cents apiece and then fifteen cents for a revenue stamp for the box, he may rightly feel that the Government has been extortionate, that there is no particular reason for protecting an industry that is, on the whole, undesirable, so that it can maintain a schedule of prices that is extortionate as compared with most other countries. So, too, the inheritance tax rather tends to disfavor the distribution of wealth, and by imposing an extra tax on real estate which is already constantly taxed by city, county and state to the amount of 20 to 30 per cent. of its income, it simply takes advantage of a transient change of title. The income tax is ideal in that it applies to actual available wealth, that it does not tend to confiscate nominal capital of no actual value, and that it does not discriminate between different means of earning a living or accumulating wealth.

The income tax is also conservatively and properly socialistic in that it increases the burden of taxation by a series of steps so as to place the burden progressively on those best able to bear it.

Against the income tax may be urged the facts that it encourages a system of governmental espionage, that it involves the increase of the horde of office holders already too numerous and

expensive, that these items involve the possibility of blackmail and graft of one kind or another. One of the best ways to become prosperous is to quit spending money, and we believe that, with reasonable allowance for expenditures that will save loss or produce an income, this method may be followed by governments as well as individuals. Those who dislike warfare have made suggestions along this line. Without committing ourselves to such means of economy, we may express the personal willingness to run the chances of future catastrophe by economizing in military and naval matters and following a national policy of minding our own business.

The income tax is not a perfected measure and it will undoubtedly result in much litigation to ascertain the meaning of some of its provisions, as applied to individual cases. But pessimists assert that this is one of the prime functions of all legislation, since legislators are mostly lawyers. With this cynicism we can scarcely agree. The general policy of American government, at least of the national government, has been one of fairness and reasonableness, even of leniency in regard to technical violations of law.

It seems to us that no one can justly complain that the lower limit of liability to the income tax has been placed at \$3,000 for a single person, nor of the amount (1% on incomes above this exemption), nor of the increase of percentage after an income of \$20,000 is reached. But in view of the long continued agitation for more universal family life, for the encouragement of the rearing of children, etc., actual experience with the law is scarcely necessary to show that the increased exemption of \$4,000 for a married couple is subject to criticism. A single man with a net income of \$3,000 is much better off, financially, than a married man with an income of \$4,000. We believe, too, that any man who is supporting a near relative—the reason for this limitation is apparent on reflection—whose sex or age warrants exclusion from gainful occupation, should have the same exemption as one supporting a wife. It is more than a corollary to this proposition, to say that exemption should be allowed for children, not only because they involve actual expense and greater responsibility, but also because every child well brought up is an asset to the country. While it is not likely that the comparatively small amount of the tax will actually discourage either marriage or child rearing—this would be choking on a gnat after swallowing a camel—it would be well in these days in which bachelor taxes are seriously considered, to apply the same principle negatively.

Since definite criticisms of the law have, in a sense, been called for, we would suggest that on the relative basis of exemption of \$3,000 for a single man there should be an exemption of \$5,000 for a married man, an exemption of \$1,000 for any near relative

over age actually supported, but providing that for males over 21 the exemption should be shown to be warranted either on the ground that support was being given to a student or to one incapacitated, mentally or physically, as by senility; and that for minor children a per capita exemption of \$500 should be allowed.

While the additional exemption of a married man is correct on the principle of support of a housewife or social companion, it seems to us that a woman actually owning property—not merely turned over by her husband to avoid responsibility or for insurance—or actually engaged in a gainful occupation, either independently or in partnership with or as an employee of her husband, should have the same exemption as a single woman. This principle applies to a good many of the women of our profession. There is no obvious reason why a tax should be levied simply because a woman is married or why a happy marriage should be taxed and an unhappy one untaxed. One of our patients left with the care of three small children by the death of his wife has pointed out a further injustice in taxing widowers as single men. He not only has the natural expenses and responsibilities of a married man, but both of these are actually greater than if his wife were alive.

POINTS OF SPECIAL INTEREST TO PHYSICIANS.

It should be distinctly understood that the exempt income on which a tax is not to be paid is \$3,000 for single men or women, \$4,000 for a married couple, with or without children. On all incomes above these limits 1 per cent. is charged, up to \$20,000. If any of our readers have incomes beyond this limit they can look up the further provisions. It should be understood that the 1 per cent. tax is paid on net incomes and only on the part of the net income that exceeds the exemption. A similar tax applies to corporations of various kinds, but such partnerships and corporations as physicians are liable to be directly interested in are, we understand, separated into individuals for purposes of taxation. Such a partnership or corporation must not, however, attempt to evade the law by fictitious expenditures or by holding back undivided surplus beyond a reasonable amount necessary to meet current expenses.

Returns must be made to the local Internal Revenue Office between January 1 and March 1 on blanks furnished, and, for the present year, incomes, exemptions and tax are calculated from March 1, so that the pro rata exemptions would be, respectively, \$2,500 and \$3,333.33. Contrary to the original announcements, returns need not be made by anyone whose income falls short of these amounts.

The law contains various provisions for the bona fide exclusion of bad debts. Physicians have generally followed the plan of

putting down their earnings as actually received. In this way a bad debt never appears as a nominal asset on the cash account and, as many accounts are carried over from one or several years previously while many current earnings will not be collected till the next or following years, an ultimate adjustment takes place automatically. We are informed by the local office that the report of actual receipts, as paid, in any one year, will undoubtedly be accepted as a fair basis for taxation. It will doubtless happen that many physicians have incomes so near the limit that they will pay taxes intermittently. While there would be little temptation to postpone the collection of an account for the sake of the 1 per cent. involved, and while such a course might disturb an average so as to increase the tax for a given year, any connivance to adjust incomes in this way would probably be severely punished. In fact, irrespective of the ethics of the matter, any attempt to evade the tax is subject to heavy fine and even imprisonment.

The matter of "withholding at the source" seems to us a very undesirable feature of the law, as vesting private individuals and firms with governmental rights and imposing on them a responsibility which they are no more likely to discharge than the individual ultimately taxed. We understand, however, that this does not apply to rentals, mortgage interest and other returns on invested capital except when the individual item is of large amount or, as in the case of certain coupons, when it is a part of a taxable investment. As a rule, we believe this clause will not apply to physicians' investments. If it does, a deduction can be claimed in paying the remainder of the tax or a rebate if the total income does not exceed the limit of exemption. Probably, in many cases, small bond holders will sacrifice the small amount of the tax rather than go to this trouble.

It should be definitely understood that the word income refers to net receipts, business expenses being deducted from the gross income. Office rental, wages to professional assistants, telephone rates, drugs and instruments, the expenses of an automobile maintained for business use, dues in medical societies, traveling expenses in visiting patients and probably in attending medical meetings, etc., are properly included as business expenses. We have seen a statement that the initial expense of an automobile will not be allowed. This is unjust if true, as an automobile is not a permanent improvement in the sense of an addition to a factory. However, practically, this ruling, if supported, would work little hardship, as depreciation could legitimately be charged, year by year, so that the ultimate result would be about the same. It has been questioned whether a physician is justified in counting part of his house rental, wages of domestic servants, etc., as professional expense. The fact that physicians who have offices in

their residences usually pay a higher gross rental and more wages for domestic help than others of the same circumstances justifies the contention that he should deduct a reasonable sum covering the upkeep of his office, such as he would have to pay for room and attendance if he rented of someone else.

Any person owning his home must include the net value of the use of it as part of his income. Whether he should rate it proportionate to rentals of similar property and then deduct taxes, interest and repairs or whether he should calculate the interest on the investment and make the same deductions, is a debatable point, especially when, as in many cities, it is usually much cheaper to rent than to own a home, if one counts interest. We venture to assert that, in the majority of instances, if one calculates that he should receive 6 per cent. on the capital invested in a home, and deducts from this taxes, repairs and a fair allowance for office rental, there will be practically no balance left.

The taxable income includes both earnings—or, rather, collections—and return from investments. Gifts and legacies are not taxable, but the income which they yield as capital is taxable. Physicians holding real estate may, of course, deduct taxes, interest and ordinary repairs in estimating the net income from such a source. Money paid for building or for making extensive alterations calculated to increase the earning value of the investment is not counted as an expense but as shifting of capital. In addition to the regular expense of real estate, a fair amount may be charged against the gross returns for depreciation. Except in the case of mines, no definite limit is given. For ordinary buildings we should estimate that 3 per cent. of cost of construction per annum would represent a fair allowance, but this is a personal estimate, without authority, and based on the assumption that the average building will deteriorate so as to require reconstruction in about 33 years. Loss by fire, storm, etc., not covered by insurance is also provided for. For minor losses the repairs necessary will provide for this estimate automatically.

In ordinary businesses, profit and loss are important items. In medical practice, assuming that one is careful to carry insurance of various kinds, it is obvious that they do not enter into the consideration except as they affect business expenses and curtailment of income. We imagine that when a physician awakes to the fact that he has invested in worthless stock he may properly claim exemption of the actual loss. Ordinary, conservative investments do not usually offer opportunities for profit or loss except as their earning capacity is increased or diminished, and this will show automatically in the gross income. While attending the meeting of the American Gastro-enterologic Association, last spring, we heard a debate in the House as to the propriety of taxing as profit, the difference between the cost and selling price

of real estate. One of the speakers contended that it was unfair to consider for purposes of taxation the gradual accumulation in value throughout a series of years, but that only the yearly profit or a profit made in direct speculation should be so considered. No definite provision has been made regarding this point, and it should be remembered that the dollars for which one sells now, represent only about 60 cents of the dollars with which a house was bought or built, say twenty-five years ago. The local revenue office confirms our opinion that loss of interest, etc., may fairly be counted in estimating the apparent profit on real estate. For instance, to take a concrete case, property bought for \$6,000 twenty-five years ago and sold this year for \$10,000 does not represent a profit even of \$4,000 divided by 25 but, in the majority of cases, an actual loss as compared with the results of an investment in a safe mortgage. On the other hand, if a physician deals in real estate as a builder or speculator and makes prompt sales at a profit or loss, he is on the same basis as one devoting his time entirely to such business.

In some ways the medical journals of the country as well as organizations of physicians can undoubtedly assist in clearing up the tangles of the income tax law. We anticipate a genuine surprise and a questioning of good faith on account of the comparatively small number of physicians who will be liable to taxation. Many physicians who have been accustomed to rate themselves in terms of book accounts or even of gross revenue will, themselves, be surprised at the shrinkage when reduced to net terms. We are inclined to believe that the average practitioner, who requires a vehicle for his calls, spends 50 per cent. of his gross collections in strictly business expenses and that his gross collections do not usually surpass 75 per cent. of his real earnings. Another surprise is the fluctuation of professional earnings. Within the last year several successful practitioners of twenty years' experience or more have stated that their earnings have fallen off 25 per cent. or thereabouts. The ultimate loss from even brief sicknesses and vacations is far greater among physicians than among business men. In fact, we have been impressed with the frequency and success of absent treatment as applied to business by a great many. Another curious paradox of medical practice—though not without analogy in some lines of business—is that, at a certain point of growth, the necessity of increasing equipment, material and human, increases expenses disproportionately so that an actual diminution of net income may result.

A Neglected Detail in Sanitation.

Imagine the contents of a privy vault scattered along highways, in masses too small to attract attention except occasionally.

Imagine faecal matter containing infectious organisms originating in a locality in which a certain disease is more or less endemic or epidemic, carried into a community in which that disease is rare or unknown, perhaps a thousand miles distant. The first assumption, by the law of chance, implies accidental contamination of shoes, and distribution of germs in dust. The second implies special danger on account of the general susceptibility to disease in peoples not immunized to any degree by previous experience with that disease.

We have used the word "Imagine" but we are not dealing with an imaginary case. The assumptions mentioned are being carried out continuously on a large scale by the railroads of the country. We do not care to take the trouble of entering into statistics, it ought to suffice to point out that every average railroad car, half full of passengers, represents, time for time, the equivalent of five or six average privy vaults. Everyone knows how the closets of these cars are emptied. If they were emptied in large masses, after a few days action of saprophytes, the abuse would not be tolerated except in a region very sparsely populated and lacking in sanitary conceptions and sanitary officials. But, the very fact that the evacuations are scattered so as to be inconspicuous and that pathogenic organisms have not been subjected to the action of saprophytes, renders the danger all the greater.

Of course, the great majority of travelers are healthy, from the sanitary standpoint but, on the whole, the traveling public is more liable to include persons in the incubation stage of disease, hurrying home, or those advanced in tuberculosis or other disease, seeking more salubrious climate, than the average ambulant population. Immigrants, returning soldiers, and long distance travelers generally are more apt to be infested with rare intestinal parasites than the ordinary population and it is a truism that the transfer of infections of a more or less local origin must occur mainly by travel.

It may be objected that railroad tracks are not highways, except for those in the cars and not especially liable to contamination from the closets, beyond the inevitable danger of any public closet. Theoretically this is true but, aside from the quite considerable number of employees working within and walking along the railroad reservations, the facts are that railroads are used to a considerable degree as foot paths, that they cross ordinary highways frequently, that closets cannot be closed in transit through small towns and that more or less contamination of large stations is liable to occur.

The chance of any particular evacuation being infected and being deposited so as to transfer infection if present, is very small. At a guess we should say that this chance is less than

1 : 1,000 but more than 1 : 1,000,000. But this chance is multiplied by many millions in the course of a year.

The remedy is obvious, practicable and not of prohibitive expense. Every traveling closet should have a receptacle attached and this should be disinfected and emptied at convenient times and places, subject to the same general principles as apply to the sanitary discharge of sewage otherwise.

A Personal Statement.

The editor has tried to avoid, so far as possible, anything approaching self-advertisement in the JOURNAL, but he may be permitted to dispel certain negative impressions. Today a medical friend telephoned, before referring a patient, to ask if the editor was still in practice. As something of the same sort has been alluded to before, more or less jestingly, it may be stated that the proceeds of medical journalism do not in this or most other cases warrant retirement from practice and that, on the whole, active medical interests are a wholesome restraint on the tendency toward the attitude of a man at the desk. In fact, in the early months of the present management of the JOURNAL it was quite necessary that the editor should have a practice, for the sake of the JOURNAL itself. It is scarcely conceivable that any medical journal of comparable field can be made a source of income to any great extent and, if it could be, the inclination of the present incumbent would be to continue in active practice until such time as one may be allowed to retire without loss of the self-respect which comes from work.

TOPICS OF PUBLIC INTEREST.

DASHEEN, A NEW VEGETABLE. The name is said to be a corruption of de Chine (from China) from its similarity to the taros of China, Polynesia and Hawaii but it seems to be indigenous to tropic America. It is cultivated in Porto Rico and Florida, as well as various other parts of North and South America. Its cultivation is somewhat similar to the potato's, each hill containing one or two large corms (underground stems) aggregating five pounds or so and from these grow smaller tubers, weighing four to five ounces each and aggregating eight to ten pounds. The corms are used first as they do not keep so well as the tubers. Otherwise, both corm and tubers are practically the same and resemble the potato but are dryer and more nutritious, containing 3 per cent. of protein and 27 per cent. of carbohydrate as com-

pared with 2.2 per cent. and 18 per cent. respectively for the potato. The dasheen may be cooked in the same variety of ways as the potato, including the use of pies and of breads from the dried and ground meal, for which the potato may be but is little used. The present price is five cents a pound, as compared with about two cents (at about \$1.00 per bushel) for the potato. The normal price may be considered to be one cent a pound, the dasheen being worth about half as much again, from the standpoint of food value. There is no reason why it should not compete with the potato.

SCHOOL REGISTRATION IN BUFFALO. Sixty-three thousand, six hundred and sixty-four are registered in public schools, 26,728 in private and parochial schools. In an average population, 19 per cent. are between the ages of 5 and 14 and, for each additional year up to early adult life, the percentage is about 1.9 per year. Thus, almost exactly 25 per cent. is included in the school ages from 5 to 18. The population of Buffalo is about 440,000, so that to provide for full grammar and high school education of every child, 110,000 should be registered. The actual registration is over 90,000, not to mention vacation and night schools. As many children finish the high school before they reach their eighteenth birthday, it is obvious that very nearly ideal conditions of education have been reached at least quantitatively.

THE ANIMAL HOLDER. Illustrations of this device are commonly used by anti-vivisectionists, as prima facie evidence, that anaesthetics are not employed. It occurs to us that it might be a good plan to have some of the antis try to dissect a dead dog without a holder of some form, when they will realize that the conformation of the back and the projecting legs present difficulties of a mechanic nature not encountered with human subjects. And while we do not advocate a cruel experiment, it occurs to us that even with the animal holder, any but the coarsest vivisection would be extremely difficult unless an anaesthetic were used. Moreover, without regard to considerations of mercy, in which the medical profession is not altogether lacking, but from a cold blooded, scientific standpoint, any severe painful impression reacts so violently on secretion and motor phenomena as to render a vivisection without an anaesthetic valueless. Of course, this argument does not apply to the physiologic study of sensation but it does apply to practically every other problem in physiology.

AGAINST FEE SPLITTING. The following declaration was adopted by the American College of Surgeons:

"I hereby promise upon my honor as a gentleman that I will not, so long as I am a Fellow of the American College of Surgeons, practice division of fees in any form; neither will I collect fees for others referring patients to me; nor will I permit them to collect my fees for me; nor will I make joint fees with physicians or surgeons referring patients to me for operation or consultation; neither will I in any way, directly or indirectly, compensate anyone referring patients to me; nor will I utilize any man as an assistant as a subterfuge for this purpose."

We can see no ethical reason for some of these provisions, in fact there is much to be said in favor of the proposition that the various attendants on a case should share equally any risk of failure to collect, and that each should receive an amount proportionate to the time and skill expended, with no discrimination as to time of collection nor as to the scale of charges, with due reference to their value. There are many cases in which the whole professional work is a unit, and we believe that, as in the case of the late President McKinley, the unit charge should be made and the fee split, but honestly and openly. Otherwise, an undue preference is given to certain forms of professional work. And we trust that this statement will not be quoted in a garbled form to be interpreted as an advocacy of what is ordinarily termed fee splitting.

CONTRACT PRACTICE. We have received from the New Zealand Branch of the British Medical Association a blank form of contract of medical officers with lodges, etc., which obviates, to a large degree, the economic and hence ethical objection to contract work. It should be understood, however, that contract practice is so legalized in England and the dependencies that the problem is somewhat different to what it is in the States. So far as can be judged, this blank contains specifications which insure a reasonable payment for professional services and prevent abuse of privileges on the part of members and their families.

U. S. CIVIL SERVICE EXAMINATION—MALE MEDICAL ASSISTANT. The vacancy is in the Bureau of Chemistry, but eligibles may be appointed to other positions which may become available. The salary is \$1,800. Applicants will not be subjected to formal examination but will be rated according to general education and medical training, practical or professional experience and fitness and publications or thesis. Form No. 304 should be secured and submitted by Jan. 12.

OSCULATORY HOSPITAL ENDOWMENT. An Ohio hospital has raised \$10,000. Twenty thousand men kissed six members of

well-to-do and locally prominent families, standing in line for the privilege. The price was \$1.00—the discrepant figures not being explained. Nice, sanitary and moral method, isn't it? If we were real crude we could suggest a more profitable scheme.

THE J. N. ADAM MEMORIAL HOSPITAL at Perrysburg is to be equipped for 15 additional patients, and a reservoir for fire protection will be built, to cost about \$8,000. Dec. 1, 1913, there were 147 patients, the original provision being for 135. There were 20 patients on the waiting list.

RECENT ENDOWMENTS. Cornell Medical School, four millions from anonymous benefactor; Johns Hopkins, one and a half millions from the Rockefeller General Education Board, to establish the William H. Welch Endowment for Clinical Education and Research.

ELECTROCUTION, for which word we disclaim responsibility, has been legally adopted in Arkansas for crimes committed after June 13, 1913.

DRESS REFORM. Various women's organizations of Cleveland have declared in favor of modesty in dress. Barring extremes which are comparatively seldom seen among decent women, the present fashion does not impress us as being especially immodest. Why associate erotic ideas with either set of limbs? But low necked street dresses in winter display an unpleasant area of goose flesh and predispose to respiratory affections, while the hobble skirt not only makes the gait awkward and interferes with proper exercise but is, at times, positively dangerous.

DANCING. So many of our contemporaries are publishing editorials on the vulgarity of the modern dance that we venture to suggest that they are either a year or so behind the times or that they have made a peculiar selection of dancing places. We hold no brief for dancing in general, but would point out that at no time for many years has the variety of dances and figures been so great as they now are and as they were in the time of our grandparents, and that at no time since the general introduction of the round dance has the rhythm so closely approached that of the minuet, which the declaimers of the modern dance have usually upheld as ideal. Even the strenuous quadruple time dances, such as the barn dance, tango and one-step are not neces-

sarily immodest, though somewhat sudorific and liable to be ungraceful, especially if the dancers are not expert. The worst dance that we ever witnessed was a quadrille, and any dance may be done decently or indecently.

A Problem in Ethics.

The Illinois Medical Journal, the organ of the state society, publishes the following:

"Below is a fac-simile of a postal card received by Chicago doctors:

THE MAYO CLINICS.

The Mayo Clinics at Rochester begin promptly at 8.00 a. m. The Great Western Limited leaving Chicago daily at 6.30 p. m. with sleeper for Rochester is the only train which enables you to be present at the commencement of the work.

Best route for your patients, too.

For tickets and berths call on or phone H. C. Hilbourne, General Agent Passenger Department, Chicago Great Western R. R., 62 West Adams street, Chicago. Phone Central 5269. Train leaves from Grand Central station, Fifth avenue and Harrison street.

"Will the Minnesota State Medical Association stand for this, or will the same brand of whitewash be applied as was used in the case of skillfully devised articles in certain lay magazines?"

Let us digress for a moment and present the same ethical problem in clinical form. About a quarter of a century ago there were two young doctors, well educated and of great promise. They held teaching positions in a medical college. We happened to meet one of them casually and were surprised at his introducing the subject of medical advertising. He felt that older and more prominent men had an unfair advantage in securing work and was seriously considering press advertising. We pointed out the disadvantages of this method and also the fact that, with increasing years, the unfairness mentioned would gradually disappear. However, he induced his colleague to enter the field of commercial medicine with him and, naturally enough, they were expelled from the college with considerable notoriety. One newspaper sarcastically headed the notice: "This advertisement won't cost them anything." One of the two men is a case that has been lost sight of, to follow clinical dialect. The other eventually discovered that unethical advertising did not pay and he gradually returned to ordinary, ethical practice, but his pres-

tige was gone and, not to enter into details, which were not particularly interesting, he died some time ago after a rather sad and hard life. What impresses us most forcibly in this case and in the majority of other similar ones that have come to our attention is that the excuse usually offered by a young man engaged in quackery is the unfair advantage taken by more prominent men in utilizing their social and professional standing in an adroit way so as to secure all the benefits of publicity without violating the letter of the code of ethics.

This much ought to be said on the other side of the question: "Unto him that hath shall be given," or, more vulgarly, "It is the fat pig that gets grease rubbed into its hide," is a general economic law as wide as the world and as old as history. The man who has achieved prominence gets a good deal of gratuitous advertising, often in objectionable ways and often without any personal responsibility. We are inclined to believe that the Mayos are in no way responsible for the postal card to which our contemporary takes exception, but that it is due to the enterprise of the passenger agent. Last year we refused to endorse the action of a Baltimore society which proposed that all surgeons whose names were connected in the public press with reports of operations or even of the removal of a patient to a hospital, should be brought to trial before boards of censors. This refusal was due not to any lack of sympathy with the general principle of ethics involved, but to the fact that experience has shown that, however modest a surgeon may be, there are customs of reporters and a demand for details on the part of the public that make it practically impossible for any medical man to avoid publicity of this sort. If we had endorsed editorially the resolution mentioned, we should have been compelled to condemn some prominent friend in almost every subsequent issue of the JOURNAL, or else to have been inconsistent.

But, it is worth while to consider seriously how far wealth, influence and business sagacity of unusual order shall modify the ethical conceptions of the profession so that, in the practical workings of the code of ethics, there is one law for the big man and another law for the little man. We make no claim to being able to solve the problem offhand. One reason is that it is difficult to draw lines. There is, for example, no objection to reporting or demonstrating a case before one's colleagues; none to the holding of clinics open to the profession by those fortunate enough to have hospital services of sufficient magnitude; but when some great man travels with a troop of assistants and trained patients and his demonstrations are placarded on the front of a theatre in ink that the laity as well as the profession

assembled in that particular city can read, a great many of the humbler members of the profession break the tenth commandment and make unkind remarks. So, too, in the field of medical literature, there is no objection to the publication of one's observations, research and reflections; none to sending reprints; it is practically necessary for financial reasons, and desirable otherwise, that practicing physicians should have the editorial control of medical journals; no serious objection has thus far appeared against the publication of one man's clinical work in either book form or as a periodical; but there is no question but that the regular issue of such a periodical is a valuable means of publicity and it is highly probable that the same general policy of issuing bulletins will extend to others less worthy, and mainly for commercial ends. There can be no objection to the institution of hospitals and to the selection of competent practitioners to give their services to the patients; but the fact that such service has not been within the reach of the majority of the profession, that it involves a return of great value, and that selection has not invariably been made impartially, has led to the establishment of an unnecessary number of rival institutions in which the commercial interest of the physicians has been pretty frankly admitted. And, right here, let it be said that there is nothing essentially unethical in frank commercialism, either in a hospital, dispensary, medical school or any other professional enterprise. The ethical infraction consists in exploiting personal ends under cover of charity, philanthropy, and science, in securing special privileges and in making selections to desirable positions which obviously are limited to a very few, on other bases than merit.

We live in an age of commercialism. Professionalism has discarded some of its former ideas depending on an assumption of superior dignity, but the general principles of professional ethics must be maintained. They can not be maintained if they do not apply impartially to all. As stated, the highly efficient publicity which some men manage to secure by an adroit insistence on the letter of the code of ethics and by making use of personal advantages, is one of the greatest reasons for quackery. The profession must solve this problem with justice to all—not forgetting the justice of accrued earning capacity of any kind of capital, including prestige honestly gained.

Centenarians.

Andrew Jaszeakiewicz, a Pole, died in Buffalo April 17, aged 109.

Dennis Snow of Weehawken died on his hundredth birthday, May 27. He had worked 50 years as a railroad flagman and had accumulated a fortune of \$50,000.

Robert Crichton, born in Perthshire, England, April 3, 1812, is still alive and in good health except for failing vision, in Catterham, 20 miles from London. He does not smoke and is nearly a total abstainer from alcohol, but uses snuff occasionally. He is a bachelor.

Frederick Halsey Janson, who died recently at Hove, England, is said to have been born on Feb. 8, 1813. He was the oldest solicitor in the United Kingdom, having been admitted to the bar in 1835.

Mrs. Nancy C. Rogers, who died recently at Montville, near New London, Conn., is said to have been born in August, 1809, in Groton, Conn. She was never ill until six months before her death.

Mrs. Louise Waterman Carpenter, of Worcester, Mass., is said to have been born on Aug. 26, 1806, in Michigan.

Mrs. Eliphalet Dorr, of Milton Mills, Me., is said to have been born on May 6, 1813, in Acton, Me., and celebrated recently her supposed centennial anniversary.

Benjamin Priest, of Canaan, Me., is said to have been born on May 12, 1812, and is reported to be still in excellent health and able to do light work about the farm.

Thomas Spillane, of Weymouth, Mass., who is locally reputed to have been born in 1812 in Ireland, has recently had pneumonia but is now convalescent.

Mrs. Jane Rich., a respected resident of Mount Vernon, N. Y., died from cardiac disease on May 18, at the age of 100 years and one month.

Bartholomew Gulguski, a native of Austria, died on May 19 in Brooklyn, N. Y., at the alleged age of 104 years.—*Boston M. & S. Journal*.

WOOD ALCOHOL. The other side. While recent articles appearing in the daily press have greatly exaggerated the danger in using wood alcohol, there is no question that the misuse of this material is a menace not only to life, but more terrible still, to eyesight, and this cannot be too strongly impressed upon the medical profession and laity. It should be understood, however, that with proper precaution it is not only a most valuable chemical,

but is no more dangerous than many other solvents in ordinary commercial use.

Prof. Chas. Baskerville, chemist of the N. Y. State Factory Investigating Commission, and probably the greatest living expert on the properties and uses of wood alcohol, praises its value to the chemical and industrial world and states that it is dangerous only when taken internally or when its concentrated vapors are breathed for long periods in inadequately ventilated spaces.

In our December issue we referred to a case of blindness caused by the use of wood alcohol shellac in a Brooklyn brewery, the workmen applying the varnish to the inside of beer vats where adequate ventilation was impossible without some device for purifying air. The information in this instance we obtained from a circular from the N. Y. Committee for the Prevention of Blindness, released for publication Oct. 27, 1913, and was headed "Another Victim of Wood Alcohol." We have since been informed that the accident occurred in 1911 and that brewers are now so well informed as to the danger of using wood alcohol varnish on the interior of beer vats that its use for this purpose has been practically discontinued.

The Paint and Varnish Record, published in Chicago, under date of Nov. 15, 1913, claims that in the last forty years less than a dozen cases can be found in which death or blindness from wood alcohol has occurred unless the alcohol has been taken internally, and a recent booklet published by one of the large refiners of wood alcohol contains letters from twelve of the largest consumers of their products in the United States, these letters stating that none of their employees have ever been injured by its use.

There has been a great deal of discussion in regard to the external use of wood alcohol, and while personally we have encountered many individuals who have used wood alcohol as a liniment we have always warned them as to the possible danger and have urged the substitution of grain alcohol in spite of its difference in cost, and we believe it is the opinion of experts that the use of wood alcohol in any medicinal preparation for either external or internal use should be prohibited. We have used wood alcohol for many years as an excipient for shellac, to cleanse the skin before drawing blood or making a hypodermatic injection, for cleansing microscope cover glasses and to some extent as a solvent for color indicators; recently, also as an anti-freeze mixture. With due precautions as to ventilation, we have had no ill effects from such use, personally or as observed in others as, for instance, in men varnishing floors.

It should be remembered that wood alcohol is one of a number of poisonous substances commonly used in the arts and trades, with perfect safety, so long as proper precautions are observed. The use of this substance, even as methylated spirits, in any drug, flavoring extract or beverage, should be absolutely prohibited, whether known by its chemical name or otherwise, and to prevent mistakes there should be a uniform law requiring the use of the well understood name, "Wood Alcohol" and a warning against its internal use, on any container whatever, placed on the market either wholesale or retail.

It is plain also that legislation should provide for the warning of workmen against the dangers of breathing the concentrated fumes of wood alcohol and for proper ventilation of all rooms in which it is employed.

As in the case of measures for safety against internal poisoning, legislation should include the proper branding of wood alcohol and, this necessarily opposes the interests of certain firms which profit in one way or another from the use of fancy names. Generally speaking, however, the wood alcohol industries recognize the ultimate benefit of marketing wood alcohol under its true name and there is developing a healthy sentiment that any object of commerce must sell on its own merits, under its own name, and without the benefit of mystery or disguise.

It should be remembered that the possible substitutes for wood alcohol are by no means devoid of dangers of their own. Grain alcohol has caused many more deaths than has wood alcohol, although its poisonous effects are so much more gradual. Gasolene and allied products from petroleum are by no means lacking in toxic properties and are of even greater danger on account of their inflammability and explosibility. Turpentine is highly toxic. One of our patients could not work three days in a shop where turpentine was employed without developing haematuria. With similar opportunities for exposure to wood alcohol, no death, blindness or similar serious lesion has occurred, so far as we have learned.

We have just received the thirty-seventh annual report of the Buffalo Eye and Ear Infirmary, and note that this institution has treated during the past year 1,652 cases of blindness and diseases of the eye, not one of which is ascribed to wood alcohol. We quote from their report: "By far the larger part of the disease of the eye from which these poor people suffer is preventable and therefore unnecessary. * * * It is high time that the public should begin to learn as medical men have long ago that venereal diseases far out-rank all the rest as destroyers of sight and hearing. * * * A second and distinct class are

those due in some way to the use of alcohol. * * * It is probable that alcoholism with venereal diseases and tuberculosis, will long continue to be the great scourges of the human race."

However strongly we may advocate the control of the use of wood alcohol, and education against its dangers, it must not be forgotten that practically all fatalities and cases of blindness have been due to flagrant misuse and that the majority of these have been due not to carelessness in its commercial use but to its use as a beverage by the most reckless and degraded tipplers. There is, as far as we know, no case on record which could not have been prevented by reasonable precautions which would not interfere with any ordinary economic use of this product—barring, of course, those analogous to accidental death by various other poisons, and preventable only by the entire disuse of all such substances. And, furthermore, there is scarcely any industrial danger which presents so small a list of death and misfortune, as that connected with wood alcohol.

REPUTABLE MANUFACTURING PHARMACISTS DO NOT FURNISH EMMENAGOGUES FOR IMMORAL PURPOSES. Recently one of the leading manufacturing pharmaceutical houses received a letter upon the letterhead of a retail druggist, but signed by another name followed by the word "druggist." The person signing the letter may have been a clerk or successor of the druggist. The letter was as follows:

"There is practically no sale for your Emmenagogue Improved Pills, as few ladies know anything about them, and we can give no advice, as we know nothing about them ourselves as to dose, etc. Please let us know by return mail and tell us how to use, dose, etc."

Reply was made to the pharmacist whose name was on the letterhead, and was as follows:

"We have our doubts about Mr. ———— being a druggist, for we cannot imagine any druggist not knowing that it is not only immoral, but criminal, to sell an emmenagogue except upon a physician's prescription. We believe that every druggist who sells an emmenagogue direct to the consumer is put upon his notice that it will be used for an immoral and criminal purpose. Emmenagogues on our list are intended exclusively for the prescription trade and we never knowingly sell them for popular use or to be recommended and resold as remedies for female complaints, etc."

NUMEROUS CHANGES have been made in the staff of the Auburn City Hospital. As now constituted the staff consists of:

Consulting surgeon, Dr. F. H. Parker; consulting physicians, Dr. J. D. Tripp, Dr. J. M. Jenkins; consulting neurologist, Dr. F. Sefton; surgeons, Dr. J. P. Creveling, Dr. L. Heazlit, Dr. D. F. Armstrong, Dr. L. F. O'Neill, Dr. W. H. Coe, Dr. T. F. Laurie; physicians, Dr. E. G. Woodruff, Dr. S. W. Day, Dr. R. C. Almy, Dr. M. P. Conway; alternate, Dr. O. B. Swayze; homeopathic staff, Dr. E. W. Hitchcock, Dr. G. B. Mack, Dr. A. E. Baker, Dr. F. M. Hyatt; obstetrician, Dr. G. C. Sincerbeaux; radiologist, Dr. S. E. Austin; ophthalmologist-otologist, Dr. G. W. Whitney, Dr. F. A. Lewis; pediatrician, Dr. Amelia W. Gilmore; pathologist, Dr. H. I. Davenport.

DEATH FROM WOOD ALCOHOL. Mistaking a jug of wood alcohol for whisky, a man in Buffalo took a considerable quantity on Nov. 27 and died.

OPPOSITION TO EUGENIC LAW. Physicians of Wisconsin object to the recently enacted law on the ground that the fee for certificate, \$3 represents an inadequate examination. One physician points out that the Wassermann test, repeated four times, followed by a Noguchi test, and if that proved negative by the examination of spinal fluid should be the routine which would, of course, entail a considerably higher cost. It occurs to us that it is scarcely feasible to place pre-marital examinations on this plane of thoroughness. All that can be reasonably expected is a fairly careful clinical examination, to weed out conspicuous cases of physical and mental defect. An elaborate exclusion of syphilis, tuberculosis, etc., in latent stages would really not be worth while considering that it is perfectly possible for these and other diseases to be contracted after the issuance of the certificate. Neither do we conceive that the scope of the eugenic movement contemplates pelvimetry, and a thorough study of potential pathologic conditions in the pelvic organs of virgins.

AUTOMOBILE CASUALTIES. According to Dr. Franklin C. Gram, Registrar of Vital Statistics for Buffalo, out of 144 accidental deaths due to traffic, for the city, in the ten months up to Nov. 1, 1913, 69 were due to railroads, 29 to trolleys, 24 to automobiles, 19 to horse and wagon, 3 to motor cycles. A man has recently been killed by a slowly moving automobile near the city line, the driver being blinded by the headlight of a suburban trolley. The first conviction of an automobilist for carrying too brilliant headlights in New York City has recently been made, the judge holding court in the street in order personally to verify the statement of the policeman who made the arrest. Last month

we witnessed a collision of an automobile with a post on account of the dazzling headlight of a standing auto. Having personally been subjected to considerable nerve strain on this account, we took the liberty to infringe on the privilege of the man who sustained the damage and to make a few appropriate remarks.

Many persons fail to understand that the majority of automobilists are the warmest supporters of proper legal control of the reckless ones. We have quite failed to convince one gentleman that drivers regard the policeman at a crowded corner as a friendly and authoritative guide and not merely with the fear of a would-be criminal confronted with an officer of the law.

There is a general misapprehension, too, of the factors of danger in traffic, the average person thinking of speed as the principal source of danger. As a matter of fact, a vehicle moving at a very slow speed is, on the whole, more dangerous than one moving at 25 miles an hour, with adequate brakes. The unlighted vehicle—and drivers of wagons are now protesting against carrying lights, which are a form of life insurance for themselves—the vehicle on the wrong side of the street, the slow vehicle in the middle of the street, the one that makes unexpected turns and stops are greater sources of danger than the one going at reckless speed.

Another cause of accidents is the impression of the pedestrian that he has the right of way. We do not question the propriety of the common law in this regard, but there are limits to what the most skillful and conscientious driver can do in the way of dodging children at play and adult somnambulists. As a rule, it is better to be alive after having conceded a privilege than to be dead after having insisted on one's rights, especially when the court will decide that, on account of contributory negligence and unavoidable conditions, the killing was neither a criminal offense nor a just ground for the collection of damages by one's heirs.

HOSPITAL FOR WESTFIELD. A vote of taxpayers carried, 209 to 173, the proposition to accept the gift of \$10,000 from Dr. Charles E. Welch and of a site from Mrs. Josephine Dodman, these donations insuring the erection of the hospital, the village to assume the responsibility for its further maintenance.

DENTAL DISPENSARY FOR BUFFALO. Health Commissioner Fronczak will recommend the establishment of a free municipal dispensary when the new Common Council assembles. Rochester has three such dispensaries.

THE PANAMA-PACIFIC INTERNATIONAL EXHIBITION, to be held in San Francisco in 1915, will have a fully equipped emergency

hospital, under charge of Dr. R. N. Woodward of the U. S. Public Health Service.

IMPROVED METHOD OF RECTAL ANAESTHESIA. J. T. Gwathmey, before the N. Y. Society of Anaesthetists, Nov. 20, 1913, described his method of anaesthesia by rectal injection of 55 per cent. of ether in olive oil, 1 ounce to each 20 pounds of body weight or, say 8 ounces for adults. Morphine is given hypodermatically one hour previously. Grile's requirements of innocuous association are met, and the patient may not even know that he is being anaesthetized. Respiratory failure, indicating too much ether, is met by washing the rectum with cold water. While the author makes no sweeping claims, there is good reason to hope that this method marks a new epoch in surgery.

THE U. S. TROOPS on the Mexican frontier are free from typhoid, on account of perfect camp sanitation and vaccination.

IODINE was isolated by Bernard Courtois in 1811, his report to the French Academy of Sciences being made 100 years ago.

TELEPHONE AND OTHER PUBLIC UTILITY CONTRACTS. Warning: Do not surrender any contract in force for a new one unless you are positive that the new one gives at least as favorable a rate and that it is subject to renewal.

THE COPYRIGHTED RED CROSS. The Red Cross Society has protested to the A. M. A. and other organizations against the use of this insignium by anyone else, for instance in the form of marking a physician's automobile. It is said that the federal law provides a fine of from \$1 to \$500 and up to a year's imprisonment. Without being especially anxious to label ourselves as physicians, it may be said that the Maltese cross, of varying degrees of thickness, is a fairly ancient symbol—indeed long antedating Christianity and found on prehistoric pottery from various parts of the world—and that the choice of color must have been various and have included red, long before the Red Cross Society was heard of.

OUR CONTEMPORARIES.

Mr. Abraham Flexner of the Carnegie Foundation, in the *Atlantic* for November, has an interesting article on "The German Side of Medical Education" which every medical man should

read—partly because there is a good deal to be said on the other side. “On the minimum standard on which a medical school can live in Germany, over three-fourths of the medical schools of the United States and Canada would be stamped out of existence.” Last August, 22 of 106 United States medical schools were rated as A plus, several schools have since been closed and several give only partial courses, leaving about 95 full time schools not destined to speedy extinction. The Canadian schools number nine, most of them being high grade. If “A plus” includes schools which Germany would not even tolerate, our classification ought to be amended. There are 33 Class A schools which are considered as satisfactory in preliminary requirements, length and scope of curriculum, but lacking in certain details, mainly on account of money. It occurs to us that Mr. Flexner’s statement should be officially investigated, for the two divisions of Class A comprise more than 50 per cent. of all the schools in this country, and we dislike to think that all of the ordinary Class A schools and some of the Class A plus would be closed according to German standards.

Mr. Flexner states that New York is the only state in which there is a Department of Education having the power to maintain a decent minimum, and that “in the city and state of New York, medical schools still exist which are utterly incapable of fulfilling respectably the purpose for which they purport to have been established.” Considering that eight or ten states and nearly three-fourths of the medical colleges have established matriculation standards higher than those of New York state, it is in no spirit of discourteous contradiction that we question whether New York is the only state having such powers of control and, considering that Columbia is mentioned in such a way as to imply that it is not meant and that there are only nine other medical schools in New York state, three outside of New York city and six in the city that confer degrees, his censure is just close enough to personalities to warrant a demand for names and an opportunity for argument. For example, if someone announces publicly that Mr. Jones is not fit to live, the distrust aroused and the embarrassment of Mr. Jones are not nearly so great as when attention is called to a group of three men of which Mr. Jones is one, and the equivocal statement is made that one of these three men is not fit to live, nor is any injustice done to the other members of the group. But Mr. Flexner’s remark is made in such terms that, while he calls attention to both of these groups of three and six colleges, he does not even limit his assertion to one of each but places a stigma on all by his remark, and puts any one of them that may feel inclined to defend itself in the light of a confessed culprit.

When we realize that approximately 75 per cent. of all medical schools of the United States have adopted a standard of matriculation including at least one year of collegiate work, and that these schools include almost every one that makes any serious contention of being in the running for a permanent and respectable position, it seems that we may fairly claim equality with the "gymnasium" requirement of Germany. The gymnasium student undoubtedly works harder and enters more into detail than the high school and freshman college student, but the general educational scope is not widely different, and it is open to debate whether the intellectual maturity and preparedness for technical instruction in medicine, as well as ambition to do good work before and after graduating in medicine, is not equally great in the American student. Thirty-two medical schools of the United States require two years or more of collegiate study for matriculation. Unless these are weak in other respects, they surpass by a considerable degree Mr. Flexner's allowance of something less than 25 per cent. that do not come up to the German standards.

Mr. Flexner's plea for an elective course in medical schools seems to us untenable under existing circumstances, except to the degree to which it has long been practiced in presenting subsidiary lectures which the student was not absolutely required to attend, or in allowing students of special proclivities to take up work as prosectors, laboratory assistants, etc., certain advanced and recondite parts of ordinary courses not required of every one. The analogy to baccalaureat elective courses does not seem to us well chosen. In very few if in any American colleges is the student allowed to make promiscuous choice of studies. He is not only required to follow with reasonable thoroughness any single course selected, but he is usually required to group his courses so as to form a reasonably unified and consistent whole. On completing his scholastic education, he is again allowed to choose, among medicine, law, theology or a number of other courses fitting for a life work. Having made this choice, further election, beyond a very minor degree, is impossible under existing conditions. The medical school does not purport to graduate specialists; in fact the majority view of those best fitted to judge is that specialism should not only follow and not supersede the ordinary medical course, but that it should follow some years of experience in general practice or, at least, of extended post graduate study. With the minor exceptions already noted, there is not a study in the medical curriculum that can be omitted without jeopardizing the interests of the medical student and of his prospective patients—for even Mr. Flexner must recognize that the majority of medi-

cal students are such on account of the intention of actually practicing medicine, however *infra dig.* such an ambition may be, and there are even medico-legal complications that might arise if the medical schools allowed much option in the choice of studies.

The *Medical Fortnightly* of St. Louis, Nov. 25, 1913, reproduces our editorial on Independent Medical Journals and Official Organs.

The *International Hospital Record* perpetrates the epigram "Surgically top-heavy hospitals," which is worth thinking about.

Dr. Charles E. Woodruff of New Rochelle, N. Y., has been appointed co-editor of *American Medicine* and will have charge of the Abstract Department.

The *Annals of Surgery* for December is almost double its usual size, being a special Anaesthesia number, but it contains a number of valuable articles in addition to this symposium.

The *Illinois Medical Journal*, Dec., 1913, speaks rather unfavorably of the American College of Surgeons and of certain phases of the A. M. A. franchise. It is the official organ of the State Society.

PERSONALS

Announcement of removal, travel, and other matters of interest are requested. Please report errors in the listing of any physician in the State and other directories that we may co-operate with the State Society in securing a correct list.

Dr. Roswell Park of Buffalo addressed the University Club of Buffalo, Dec. 6, 1913, on The Purpose and Work of the New State Hospital for the Study of Malignant Disease, giving also a talk on the general nature of cancer, which he considers as probably due to microorganism.

Dr. Stephen Yates Howell of Buffalo has returned from a trip around the world lasting ten months.

Dr. L. M. Wilkins of Lackawanna was quite seriously injured, Nov. 27, by a collision between his automobile and a street car.

Miss Jessie Broadhurst, late of the Hospital of the Good Shepherd of Syracuse, has been appointed superintendent of the Broad Street Hospital of Oneida.

Dr. Julius H. Potter of Buffalo took a trip to St. Louis in December.

Dr. John A. Ragone of Buffalo sailed Dec. 11 for Europe, expecting to spend six months in various medical centers.

Dr. Clayton M. Brown of Buffalo has returned from Europe.

Dr. Mary I. Denton of the Western College, Oxford, O., a former Buffalonian, visited in Buffalo in December.

Dr. Hal B. Brownell of Buffalo has returned from a trip to Georgia.

Dr. Wm. L. Phillips of Buffalo has returned from a four months' European trip.

Dr. John D. O'Brien of Buffalo spent Thanksgiving in Ashtabula.

Dr. F. M. Boyle of Buffalo has been offered the position of First Deputy to the newly appointed Commissioner of Public Charities for Erie County, Mr. Wm. Hunt. The salary is \$3,000.

Dr. H. H. Glosser has moved to 404 Franklin street, Buffalo, a few doors south of his former residence.

Dr. H. C. Leonhardt, formerly of North Tonawanda, who has spent the last nine years in Florida, is located at 267 Franklin street, Buffalo.

OBITUARIES.

Readers are requested to report promptly the death of all physicians in Western New York, or former residents of this region, or graduates of any medical school in Western New York and to notify the families of the deceased of our desire to publish adequate obituary notices.

Dr. Lucien La Bland Brainard, N. Y. Homeopathic Medical College, 1874, died suddenly, Nov. 18, of heart failure at his home in Little Falls, aged 60. He was Vice President of the local National Bank and was formerly on the consulting staff of the Faxton Hospital of Utica.

Dr. Charles E. Boulton, Buffalo, 1892, died at his home in Honey Falls, suddenly, Nov. 7, aged 54. Death is ascribed to heart disease. He was president of the local Board of Education and a coroner's physician of Monroe County.

Dr. George A. Edwards, P. & S. (Columbia), 1817, died at his home in Syracuse in November, 1913.

Dr. John Archibald McDonnell, Buffalo, 1875, Prof. of Surgery in the Bennett Eclectic College of Medicine of Chicago, died at his home in that city, Sept. 19, aged 66.

SOCIETY MEETINGS.

Brief reports and announcements of meetings of societies of Western New York and of those of general scope are requested from Secretaries. Copy should be on hand by the fifteenth of each month. Full transactions will be published at cost of composition.

THE DUNKIRK AND FREDONIA MEDICAL SOCIETY held its annual meeting, preceded by a banquet, at the Hotel Gratiot, Dunkirk, Dec. 10. Dr. G. E. Smith of Fredonia presented a paper. The following officers were elected: President, Dr. Walter H. Vosburg; Vice President, Dr. N. E. Beardsley; Secretary and Treasurer, Dr. William J. Sullivan, all of Dunkirk.

THE WELLSVILLE MEDICAL CLUB has been organized for the purpose of studying local sanitary problems. Monthly meetings

will be held. The officers are Dr. F. E. Comstock, President, and Dr. R. M. Eaton, Secretary-Treasurer.

THE MEDICAL SOCIETY OF THE COUNTY OF CHEMUNG held its annual meeting in its rooms in the Federation Building, Elmira, Dec. 16. The program was as follows:

Prolapse of the Uterus.....	N. H. Soble, M. D.
Medical Economics.....	R. G. Loop, M. D.
Glaucoma.....	C. L. Carey, M. D.
Some Personal Observations on Smallpox....	F. B. Parke, M. D.

BUFFALO ACADEMY OF MEDICINE. Nov. 25, 1913, Section of Pathology; Syphilis of the Meninges, Dr. E. R. Le Count, Prof. of Pathology, Rush Medical College, Chicago.

Dec. 2, Section of Surgery; Drs. Thew Wright and Charles W. Bethune of Buffalo, Demonstration of Foreign Bodies in the Bladder, Dr. Lincoln Davis of Boston, Calculus Anuria.

Dec. 9, Section of Medicine; Dr. Richard C. Cabot of Boston, Diagnosis of Diseases Causing Epigastric Pain. This was in the nature of an informal talk, with blackboard tabulation, the speaker raising many questions of interest for future solution. Dr. Cabot also gave an afternoon clinic at the General Hospital. Dr. John H. Pryor of Buffalo presented specimens from a case of high cancerous obstruction of the oesophagus, with abscess forming secondarily. The case report will be published later in this JOURNAL.

Dec. 16, Section of Obstetrics and Gynaecology; Dr. F. C. Goldsborough presented a specimen from a case of Perforation of Pregnant Uterus with Curette; Dr. Thomas H. McKee spoke on "New Wine in Old Bottles"; Dr. James E. King gave a lantern slide demonstration of The Present Status of Operative Treatment of Cervical Cancer. The discussion was opened by Dr. Herman E. Hayd (all of Buffalo).

THE MEDICAL SOCIETY OF THE COUNTY OF CHAUTAUQUA held its annual meeting at Dunkirk, Dec. 9, 1913. Dr. N. G. Richmond of Fredonia delivered the President's address, "The Functions of a County Medical Society"; Dr. A. L. Benedict of Buffalo read a paper on Hyperchlorhydria—A Paradoxical Disease; Dr. H. S. Reger of Jamestown on Mouth Breathing and Its Correction and Dr. William J. Sullivan of Dunkirk on the Pituitary Bodies. The last will be published in this JOURNAL. Dr. George F. Smith of Falconer was elected President.

MEDICAL SOCIETY OF THE COUNTY OF MONROE. Election of officers Dec. 16, 1913: President, Albert C. Snell; Vice-President, F. W. Zimmer; Secretary, C. W. Hennington; Treasurer, F. W. Seymour; Board of Censors, C. E. Darrow, E. H. Howard, R. M. Moore, C. R. Witherspoon, J. F. W. Whitbeck. Delegates to State Society, two for term of two years, L. W. Howk and W. E. Bowen; alternates, M. B. Palmer and J. M. Swan. Delegates to Seventh Dist. Branch, one for two years, W. W. Percy; alternate, W. H. Sutherland. Members of Milk Commission, two for three years, J. W. Magill and E. G. Nugent.

THE NATIONAL CONFERENCE ON RACE BETTERMENT will meet at Battle Creek, Jan. 8-12, 1914. A long and interesting program, including the presentation of moving pictures, models and demonstrations, has been provided. There are no dues, but \$1 will be charged for the printed proceedings. The Battle Creek Sanitarium will act as host for the Conference. The President is Dr. Stephen Smith, Vice President of the N. Y. State Board of Charities.

THE NIAGARA FRONTIER ORGANIZATION has been formed to urge the improvement of the Niagara River Road as a boulevard. We expressed our opinion of the present boulevard in the November issue. Mayor John A. Rafter of North Tonawanda, Hon. Peter A. Porter and George F. Nye of Niagara Falls addressed the initial meeting at La Salle, Dec. 22.

THE ROCHESTER ACADEMY OF MEDICINE, Section on Public Health, met December 10 in the Academy Rooms, 355 East Ave. Dr. C. C. Sutter gave a paper on the Development of Complement Fixation Tests; Dr. C. O. Boswell on The Wassermann Reaction—Some Conclusions; Dr. Raymond Sanderson of Canandaigua on the same in Diagnosis and Prognosis. The discussion was opened by Drs. Joseph Roby and E. Wood Ruggles.

THE ninety-second annual meeting of the MEDICAL SOCIETY OF THE COUNTY OF ERIE was held in the Buffalo Library Building on Monday evening, December 15, 1913, President Whitwell presiding. The minutes of the previous regular meeting and of the council meetings were read and approved.

The following new members were duly elected: Dr. Edward C. Koenig, Dr. Hugh C. McDowell, Dr. Gaetano Rescigno, Dr. Geo. P. Michel, Dr. Lucy A. Kenner, and Dr. Wm. L. Howard was elected by transfer from the Medical Society of the County of Monroe.

President Whitwell appointed Drs. Kauffmann and Phillips as tellers and Treasurer Lytle as clerk for the annual election.

President Whitwell called Vice-President Woodruff to the chair and then delivered his annual address.

Annual reports were submitted by the Board of Censors through Dr. J. D. Bonnar; by the Committee on Public Health, through Dr. H. R. Hopkins; by the Committee on Psychopathic Hospital and Examination in Lunacy, through Dr. F. S. Crego; by the Committee on Collection of Accounts, through Dr. Wm. H. Thornton; by the Milk Commission, through Dr. Clayton W. Greene; by the Committee on Contract Practice, through Dr. Edward E. Haley, and the Annual Report of the Treasurer, by Dr. A. T. Lytle.

The tellers then presented their report of the election, and the following officers were declared duly elected:

President—Dr. John V. Woodruff.

First Vice President—Dr. Arthur W. Hurd.

Second Vice President—Dr. Franklin W. Barrows.

Secretary—Dr. Franklin C. Gram.

Treasurer—Dr. Albert T. Lytle.

Censors—Drs. John D. Bonnar, Francis E. Fronczak, Arthur D. Bennett, Irving W. Potter and Archibald D. Carpenter.

Chairman Committee on Legislation—Dr. F. Park Lewis.

Chairman Committee on Public Health—Dr. Henry R. Hopkins.

Chairman Committee on Membership—Dr. Grover W. Wende.

Delegates to the State Society—Drs. Albert T. Lytle, Julius Ullman, Julius Richter and Franklin W. Barrows.

Dr. Whitwell then turned over the chair to President-elect Dr. Woodruff, who briefly thanked the Society for the honor conferred upon him, after which a rising vote of thanks was extended to retiring President Whitwell for the able manner in which he had presided during the past year.

The Council was empowered to make arrangements for the visit in January of President Witherspoon of the A. M. A.

CORRESPONDENCE.

This department is intended for the presentation of news and views not coming within the scope of other departments, and particularly to afford opportunity for discussion and criticism of views elsewhere expressed.

Priority Conceded.

Rochester, N. Y.

Editor Buffalo Medical Journal:

Please add a foot note to my paper on the modification of the Crile Canula, stating that I have just found a reference to the

Annals of Surgery, October, 1909, in which Bernstein describes a similar modification and should have the credit of priority.

Very truly yours,

C. W. HENNINGTON.

NOTE: The above was received just too late for insertion in the December issue.

BOOK REVIEWS

Books mentioned may be inspected at and ordered through this office. So far as possible, books received in any month will be reviewed in the issue of the second month following.

EARLY PULMONARY TUBERCULOSIS, Diagnosis, Prognosis and Treatment, John B. Hawes, 2d, M. D., Boston. Published by Wm. Wood & Co., N. Y., 114 pages, illustrated, \$1.50.

The author speaks with abundant experience, as an expert and, therefore, modestly and in a very conservative way. For this reason it is difficult to select passages for review as especially novel or arousing debate. The book consists largely of appendixes which should be read as well as the text and, altogether, it is a common-sense, orthodox presentation of professional views, supported with personal familiarity.

STAMMERING AND CONATE DEFECTS OF SPEECH. C. S. Bluemel, Boulder, Col., published by G. E. Stechert, N. Y., London, Leipzig and Paris. Two volumes of about 275 pages each, \$5.00.

The first volume deals mainly with the psychology of stammering, the second with systematic pronunciation exercises for its treatment. Aphasia and other conditions are included and allusion is made to organic nervous conditions. Defects of speech are a very serious handicap both socially and economically. We recall a pitiable case of an exceedingly beautiful and otherwise attractive girl who could scarcely express her thoughts except in music. Employed in an institution for the feeble minded, she was, even here, largely excluded from the social life of the numerous staff. While fluency of expression is a somewhat dubious asset, marked incapacity for verbal communication is still more unfortunate. The persistence of speech defects and the comparative rarity with which the physician is consulted about them, indicate that there is need of instruction in this branch.

BUREAU OF ETHNOLOGY, Bulletin 53, CHIPPEWA MUSIC II., by Frances Denmore. This supplements Bulletin 45.

These volumes contain many songs with notes and words, the latter translated also, illustrations of the things, and customs to which the songs apply, and a critical study of the tonality, tempo, rhythm, &c, of Chippewa music.

THE UNEXPURGATED CASE AGAINST WOMAN SUFFRAGE, Sir Almoth E. Wright, M. D. F. R. S., published by Paul B. Hoeber, 69 E. 59, N. Y., 188 pages, \$1.00.

While the word "unexpurgated" did not suggest to us the sense in which it might apply to Ovid or Byron, we expected to find a militancy of expression that might lead to arson of Sir Almoth's residence or office or to personal violence at the hands of the suffragettes. On the contrary, we find a logical and temperate presentation of the arguments against suffrage, objectionable only as any argument as to fitness must seem so to one to whom fitness for anything is denied. While the work is logical, Sir Almoth's opponents can readily find, indeed have already reiterated, the arguments in rebuttal. It must be understood that, in England, the case of woman suffrage is far different to what it is in the States, including physical means as well as purely intellectual discussions. This is excused on the ground that the Englishman is not amenable to argument and moral suasion. Whether there is this marked radical difference or whether the Englishmen in the States, still amounting to about 25 per cent. of the population, have been radically changed by environment, we doubt. But granting this excuse, it is the best reason why violent measures will fail. Meantime, peaceable measures have demonstrated that, in this country and probably others, women will get the suffrage as soon as a majority actually want it and have actually taken their places among men as equal producers of wealth and moulders of public opinion.

PRACTICAL MEDICINE SERIES, under general editorial charge of Charles L. Mix, A. M., M. D.: Vol. 7, OBSTETRICS, edited by Joseph B. De Lee, A. M., M. D. and Herbert M. Stone, M. D. The Year Book Publishers, Chicago, \$1.35, price for the annual series of ten volumes, \$10.00.

As previously stated, this series is the most practical and thorough review of periodic literature now published. We note especially in this volume a very thorough review of the Aberhalden test for pregnancy and a discussion in simple terms of the principles involved and their potential extension to other problems in diagnosis.

THE MEDICAL RECORD VISITING LIST FOR 1914, Wm. Wood & Co., N. Y. The regular lists are prepared for 30, 60 and 90 patients a week, at \$1.25, \$1.50 and \$2.00 respectively. Special forms with calf skin wallet for 30, and 60 patients, with replaceable books for six months, are sold at prices ranging from \$2.50 to \$4.00, carriage prepaid.

THE PRACTITIONER'S VISITING LIST FOR 1914. An invaluable pocket-sized book containing memoranda and data important for every physician, and ruled blanks for recording every detail of practice. The Weekly, Monthly and 30-Patient Perpetual contains 32 pages of data and 160 pages of classified blanks. The 60-Patient Perpetual consists of 256 pages of blanks alone. Each one in wallet-shaped book, bound in flexible leather, with flap and pocket, pencil with rubber, and calendar for two years. Price by mail, postpaid, to any address, \$1.25. Thumb-letter index, 25 cents extra. Descriptive circular showing the several styles sent on request. Lea & Febiger, Publishers, Philadelphia and New York.

Both of these lists are in established use, contain dose tables, guides for emergent cases and other useful information. We are at a loss to express a preference between them, even if it were fair to do so. One of the publishers remarks with a sarcasm justified by the dilatory reviews sometimes made, that a review next July will be of no value. We regret that neither list was received till the December issue was in press.

TRANSACTION OF THE AMERICAN UROLOGIC ASSOCIATION, 12th Annual Meeting at Boston, April 15-17, 1913. Printed by the Riverdale Press, Brookline, under the direction of the Publication Committee, Hugh Cabot, Richard Frothingham O'Neil and George Gilbert Smith.

Our territory is represented by Drs. James A. Gardner and Burton T. Simpson, in a paper on the Relation to Multiple Adenomata to the Etiology of Enlargement of the Prostate. The various monographs included in the transactions are of a high order and show the advances being made in this specialty.

GLYCOSURIA AND DIABETES, Dr. F. M. Allen. This book, previously reviewed and originally published by W. M. Leonard, has been taken over by the Harvard University Press of Cambridge, Mass.

CAUSES AND CURES OF CRIME. Thomas Speed Mosby, Jefferson City, Mo., published by the C. V. Mosby Co., St. Louis, 354 pages, illustrated, \$2.00.

The author is a lawyer, formerly Pardon Attorney of the State, and has already published works on Capital Punishment, Youthful Criminals, Alcoholism and Crime, Mothers of Bad Boys and other essays. While prepared to discuss the subject from its legal aspects and to avoid the errors of fact and anticipate obstacles to theoretic reform which hamper one without training in the law, the author is not content to discuss Crime as

at present punished but treats the subject broadly, from the sociologic and psychologic standpoint. Many of the illustrations represent instruments for scientific gauging of nervous and mental status—collated in a chapter on the New Penology. Indeterminate Sentence and Parole is awarded a lengthy chapter with a list of provisions actually established in various states. The value of finger print identification is illustrated by three photographs of persons closely resembling one another but showing marked differences in the finger prints. The irony of "Twentieth Century Civilization," is illustrated by a photograph of two prisoners in the stocks and a third at the whipping post although personally, we regard the whipping post as, at least, a debatable institution. Taken as a whole, the work is scholarly, hopeful, benevolent and wise.

PYORRHOEA ALVEOLARIS, Fredrich Hecker, B. S., D. D. S., A. M., M. D., Kansas City, published by the C. V. Mosby Co., St. Louis, 157 pages, illustrated, \$2.00.

Nine bacteria are most commonly found in this condition, the staphylococcus pyogenes, albus, aureus, citreus, and fetidis, the streptococcus pyogenes, the bacillus pyocyaneus, diplococcus pneumonia, the leptothrix buccalis and the spirochete refringens. These are discussed in detail. Autogenic vaccines are regarded favorably. The clinical manifestations of the disease, and the various diagnostic and therapeutic methods are fully discussed.

MEDICAL RESEARCH AND EDUCATION. The Science Press, New York and Garrison, N. Y., 536 pages.

This is the second volume in a series on Science and Education, edited by J. McKeen Cattell but of independent scope and appealing especially to medical interest. It contains a number of essays by distinguished laboratory workers and educators and, while not directly dealing with technical achievements, is of great value as throwing light on the history and general ethics and potentialities of research. It is by no means a narrow plea for vivisection but has a broad scope.

CASE HISTORIES IN PAEDIATRICS. John Lovett Morse, A. M., M. D., Boston; published by W. M. Leonard, Boston; 638 pages, illustrated; \$3.00.

This is the second edition, indicating a professional appreciation of an excellent work. While the clinical case method is followed, general methods of diagnosis, &c. are systematically presented at the outset and the cases are logically grouped.

SURGICAL EXPERIENCES IN SOUTH AFRICA. Being mainly a clinical study of the nature and effects of injuries produced by bullets of small calibre, George Henry Makins, C. B., F. R. C. S., London. Published by Henry Frowde and Hodder and Stoughton, represented by Oxford University Press, American Branch, 35 W. 32, N. Y., 504 pages, \$3.75.

It is rather to be regretted that this book has appeared so long after the Boer War of 1899-1900, when the author made the observations as consulting surgeon to the South African Field Force of the British Army. It is however, a second edition and while surgery has made steady advances, no new discoveries nor changes of methods of military surgery have occurred such as to relegate this work to the class of "historically interesting." Both in its strictly scientific features, covering a wide range of surgery, through especially military traumatism and in its adaptations to the training of military surgeons, it is still modern and authoritative. Very little attention is given to executive details and, in our opinion, the usefulness of the book, especially for foreign readers and for future campaigns, is enhanced by this fact.

Some interesting comparisons of casualties in different wars are given. For instance, the Kimberly Relief Force (English) had 2 per cent. of its troops killed and 9.6 per cent. wounded, whereas at Waterloo, the percentages were 4.85 and 16.25; for the Crimea, 2.81 and 12.35; for the Franco-Prussian War (German) 1.97 and 10.83, and for the Russo-Turkish War (Russian) 10.92 and 23.75. As the author points out, the Boer policy was to kill without being killed and while the losses were relatively less than those of the English, the method of warfare necessarily tended to reduce the losses of the English also.

TRANSACTIONS OF THE AMERICAN ASSOCIATION OF OBSTETRICIANS AND GYNAECOLOGISTS. Vol. 25, for 1912. Published by the Maple Press of York, under the direction of the Secretary, Dr. E. Gustav Zinke of Cincinnati.

A convenient list of members, with brief biographic data, is given. Without venturing to select any of the numerous scientific papers for review, it is significant that those dealing with strictly obstetric subjects are comparatively few and that even in the surgical papers, a tendency to discuss complications and even conditions not directly involving the sexual organs, is manifest. We mention this in no spirit of censure; it merely shows the development along new lines of discovery and thought and the broadness of view of modern specialism. In our own experience, we note the same tendency to diversion from specialism in the narrow, simple form, to more recondite borderland cases and more particularly in those cases in which the question as to the legiti-

macy of including such cases in a given specialty is decided by other physicians. The paucity of papers dealing with obstetrics not involving major surgery, seems to confirm the impression derived from a contrast between modern and quite old books on obstetrics—that this branch of medicine is nearer the limit of human perfection than any other. We wish that every one could read this masterly collection of monographs and we feel that the published book reflects great credit on the Secretary.

THE PRINCIPLES AND PRACTICE OF MEDICAL HYDROLOGY. R. Fortescue Fox, M. D., F. R. Met. Soc., London. University of London Press, represented by the Oxford University Press, American Branch, 35 W. 32d, N. Y.; 295 pages; \$2.00.

The physiology of bathing, including observations on the functions of the skin, bodily heat, etc., general principles of hydrotherapy and reference lists of European spas and springs are given. A considerable but not comprehensive list of special diseases to which hydrologic treatment is applicable is given and details are well discussed. The fact that the author does not discuss hydrotherapeutic measures for every conceivable disease, affords a sense of confidence. Throughout the work, we find more space devoted to balneology and greater emphasis placed on the external than on the internal use of mineral waters. This fact also inspires confidence.

DYSENTERIES, Their Differentiation and Treatment. Leonard Rogers, M. D., F. R. C. P., B. S., etc., Calcutta. Published by Henry Frowde and Hodder & Stoughton London. Represented by Oxford University Press, American Branch, 336 pages, \$3.75.

A few beautiful colored illustrations are included in this work, quite equal to American standards. The first chapter gives the history of dysentery up to the differentiations of the various types. Amoebic and Bacillary Dysenteries are sharply distinguished as are the pathogenic from the harmless amoebae. "Other forms of dysentery," including the effects of balantidium, bilharzia, trichomonas and intestinal worm, Hill Diarrhoea and sprue are well discussed and the author regards it as probable that non-specific colitis may resemble dysentery. The multiplicity of forms of dysentery is well illustrated by the table of sugar reactions of seven types of bacilli. While dysentery is not a common disease in this climate, it was frequently mentioned by the older practitioners and it is quite likely that mildness of infection may have misled the present day profession as to its frequency and importance. At any rate, dysentery is—or rather dysenteries are—prevalent in many parts of the world and specific infections are

liable to be introduced elsewhere by travel and commerce. Hence a work of this nature and scope, is a welcome addition to the library and one which should be widely read.

OBSERVATION ON PREGNANCY AND LABOR AND ON THE MALADIES OF WOMAN AND THE NEW-BORN. Francois Mauriceau, Master of Arts and Ex-prevost of the company of Sworn Master Surgeons of the City of Paris, published at Paris by the Company of Associated Libraries, 1738.

These observations consist of a series of 700 case reports and a supplement of 150 final observations, covering altogether the years from 1669 to 1704. The first series is indexed. This method of medical writing, recently revived, has the disadvantage of lack of systematic arrangement but the advantage that, however much theories and knowledge may change, the observations themselves are, for the most part, always available as records of facts in recognizable form.

In reading an old medical book, one is surprised to find how much of what he supposes to be comparatively modern, is really old. Numerous observations cover the abnormal presentations, abortions, prolapse of the funis, placenta previa, premature delivery, etc., in fact the index is surprisingly modern in its extent, except for certain peculiarities of nomenclature. We select, therefore a few cases of peculiar interest or showing notable differences from or similarity to modern obstetrics.

Too frequent applications of butter during labor are condemned and death of the child is attributed to the use of too cold butter.

In a case in which the author has terminated expulsive efforts of two days' duration by extracting a "false germ" of the size of a small hen's egg from the uterus, the nurse showed him another membranous mass passed the day previously and which she and the attending physician had regarded as another false germ. After careful inspection, the author convinced them that this was a section of chicken gut used over the tip of a rectal syringe to facilitate introduction, the patient having piles.

Conception without rupture of hymen, without previous menstruation and occurring during menstruation. The last case was of a woman aged 44, who had had intercourse for eleven or twelve years only during menstruation, believing that she could not conceive at that time. After realizing that she had conceived, fears were entertained that the child would be abnormal but it was perfectly healthy. The author mentions voluntary sterility in several instances, but, so far as we have noted, only from continence. Various other well known causes of sterility are mentioned, including imperforate hymen (one case rendered fertile by operation) tapir-like cervix (one case of sterility by first husband, fertility by second), obesity, &c.

Gonorrhoea is rather frequently mentioned but is apparently not always sharply distinguished from other discharges. However, the infection of wives from husbands is well recognized and three cases are reported in little girls, in one on account of precocious sexuality—the author calls her a little minx or words to that effect in French—in two others, aged respectively six and seven who had been seduced or raped by servants, without penetration. In the latter case, he observed that the villains ought to have been burned alive. Gonorrhoea does not seem to have been observed as a cause of blindness nor definitely recognized as a cause of sterility.

That eugenics is not entirely a new thought is evidenced by the selection of six cases of healthy infants born of infirm mothers, to illustrate exceptions to a rule.

Complete procidentia is mentioned several times, both in parous women and in two nulliparae who had sustained the prolapse at age of 16 and 22, respectively, from muscular strain. Successful reposition was accomplished in each case after rest, purgation and bleeding and pessaries were introduced.

A case indexed as vomiting of meconium, is described as continued vomiting of a new born infant, the vomiting ultimately becoming dark and the diagnosis being in doubt between meconium, bile and blood. Today, the last tentative diagnosis seems most probable. The child recovered.

Under the title of venereal disease of pregnant women, syphilis alone is meant, except in one case described as virulent gonorrhoea due to the husband and leading to a formation of bubo. In four cases, delivery of a normal infant and cure of the mother is reported, under the use of mercury to salivation. No unsuccessful cases are reported, although undoubtedly some of the numerous cases of abortion, false germ, &c, were of syphilitic origin. Perhaps we may well act on the hint to use heroic doses of mercury in pregnant women.

The author repeatedly emphasizes our inability to determine the sex of the unborn child—an opinion of interest both with relation to old-time notions and modern attempts to the contrary. He also reports triumphantly, a case in which the husband had visited an astrologer and had returned with his head filled with what he had predicted from the inspection of the stars to show that the exact date of parturition could not be foretold.

One case of superfoetation is mentioned, the woman giving birth first to a small foetus, decomposed but surrounded by its sac and then to an infant of six and one-half months, preceded by discharge of amniotic fluid, alive but not surviving. From various circumstances, he concluded that the dead foetus antedated

the second pregnancy. Superfecundation is not explicitly mentioned.

Six cases of post mortem Caesarian section are mentioned.

Malaria treated by cinchona, dysentery and a great variety of diseases occurring during pregnancy, are described. Some of the most interesting allusions are to small pox. For example, he mentions a case of a woman who contracted variola in the second month of pregnancy, recovered and was delivered at six and one-half months of a foetus, apparently recently dead, presenting more than twenty typic pustules. On the other hand he reports a case and mentions having had a number of others in which small pox neither interrupted pregnancy nor was transmitted to the foetus. He also mentions small pox in the puerperium.

NOTE: Owners of ancient medical books are invited to contribute abstracts of them.

ABSTRACTS.

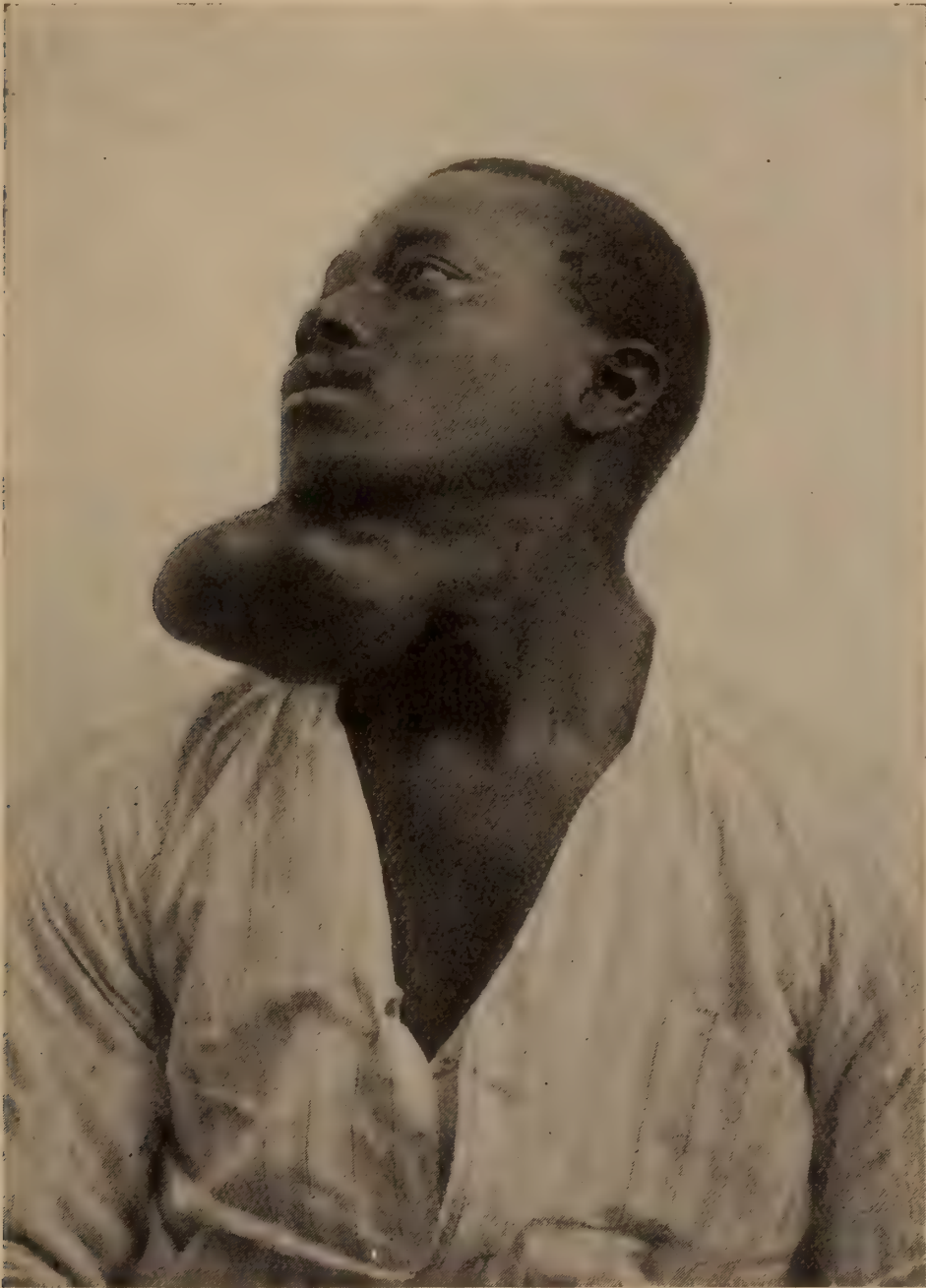
SCORPION FOUND IN BUNCH OF BANANAS. The accompanying cut illustrating a rare but not unknown danger of commerce,



is reproduced through the courtesy of *Popular Electricity and the World's Advance*, a journal which is interesting from cover to cover, including its advertisements.

BENZOATE OF MERCURY IN SYPHILIS. G. B. Sweeney of Pittsburgh, *Urologic & Cutaneous Review*, having observed the results obtained by Gaucher of the St. Louis Hospital, Paris, who used a solution in sodium chlorid—sterile water, conceived the idea of eliminating the drawback of pain by employing an oil emulsion derived from bullock's brain. This medium and the precaution of using chemically pure benzoate of mercury proved successful in rendering hypodermatic injection comparatively painless. The patient may be assured that the period of treatment will seldom exceed three months; that there will be no digestive disturbances and that recurrence of lesions need not be feared if reasonable precautionary measures are followed up and correct habits are observed.

SOLID TUMORS OF THE SUB-MAXILLARY GLAND. Addison G. Brenizier, A. B., M. D., Charlotte, N. C., *Old Dominion Jour. of Med. & Surg.*, Nov., 1913. The author reports a case in a negro aged 22, of a typic mixed tumor which had grown from the size of a walnut in seven years. (Cuts reproduced by courtesy of editor.) He also alludes to two cases of malignant recurrence



after incomplete operation, one in a physician's wife, aged 34, the other in a man of 24.

Tumors of the sub-maxillary gland are relatively rare. Kuettner, in 1897, was able to gather together ninety-seven cases scattered in the literature, to which he added six other unrecorded cases. Since this date a few more cases have been reported by different authors.

Among 12,850 surgical cases at the Johns Hopkins Hospital, Bloodgood found but five tumors of sub-maxillary gland. (Chronic inflammations are excluded from this number.)

All statistics show that tumors of the sub-maxillary gland are much rarer than those of the parotid gland—a proportion of about one to nine. As with the parotid, a great majority of tumors of



the sub-maxillary are the so-called mixed tumors, and these tumors present the same gross and microscopical picture in both glands. Out of seventy-eight cases where the histologic picture was shown, Kuettner reports sixty-five mixed tumors. (Kuettner indicates fifty-eight mixed tumors and seven endotheliomata, but the distinction between the two varieties is open to discus-

sion.) The other varieties of tumors of the sub-maxillary gland are indeed rare. Up to 1900 there were only four cases of a pure sarcoma observed (Jouliard, Volkmann, Lotheissen and Bloodgood), and three cases of adenoma (Talazac, Duplay and Poncet). As to carcinoma, Kuettner cites five cases, of which only two appear certain (Waldeyer and Volkmann).

Clinically, Kuettner distinguishes two groups of tumors of the sub-maxillary gland: tumors showing a benign evolution, embracing mixed tumors and adenomata, and tumors showing a malignant evolution, the sarcomata and the carcinomata.

MASTURBATION IN GIRLS. DIAGNOSIS BY YEAST TEST. Kaufmann, *N. Y. Med. Jour.*, Oct. 18, 1913, makes a preliminary test of the urine to insure absence of yeast cells. In the evening, the child is given yeast to handle and put to bed without washing the hands. If yeast is found in the morning, it is considered diagnostic of masturbation. (If the domestic sterilization of the urine containers has been perfect and if yeast has not entered the urine from the anus, and if it has not subsequently entered the sample of urine from the air, and if the yeast drying on the hands has not been disseminated through the air beneath the bed covers, and if the nightgown or towel or handkerchief or sheet touched by the hands has not come in contact with the genitals, and if there has been no itching or other irritation of the parts leading to touch during sleep, without masturbation and, perhaps, some more ifs.—Ed.)

ABSORPTION OF NUTRIENT ENEMATA. A. R. Short and H. W. Bywater, *Brit. Med. Jour.*, June 28, 1913, hold that the method of gauging absorption of enemata by subtraction of nutrients remaining in "washouts" is unreliable. Estimations of urinary nitrogen in patients nourished(?) by the rectum, even if the enemata are peptonized for 20—30 minutes, show no appreciable absorption of proteid. This is logical, since modern research supports the theory that proteid is absorbed principally as amino-acids. Using chemically prepared amino-acids or milk peptonized for twenty-four hours, they find a genuine absorption of nitrogen and no marked putrefaction in the bowel contents. Dextrose is well absorbed, better than lactose and sufficiently to relieve acidosis. Fat is scarcely absorbed at all. They boil 750 c.c. of milk, cool, add 15 c.c. of a reliable liquid pancreatic extract or four tablets and incubate at body temperature for twenty-four hours. 150 c.c. every four hours or 300 c.c. every eight hours, are injected.

THE PSYCHIC VALUES OF LIGHT, SHADE, FORM AND COLOR.—F. Park Lewis, M. D., Buffalo, *Trans. of Illuminating Engineering Society*, Oct., 1913. In its last analysis the physics of light must be considered in the effect of shade, form and color upon the human emotions, feelings and sensations. No single factor more definitely dominates the lives of men than the impressions made upon them by what they see. The dignity and beauty of our surroundings inspire to higher living and better citizenship. We are brought in relationship to the external world only through our special senses. Were all the other senses abolished while the intelligence remained, there would be no possibility of communication with the outside world. Light and color are not the waves of different amplitudes in the ether but are the results of the impressions produced upon our consciousness by these external influences. We perceive objects only by reason of the reflected light from their surfaces. Could we imagine a condition in which surfaces would reflect no light, objects could not be seen even though light were present. The element of beauty has not only an esthetic value; there are by-products, if they may be so called, which are incidentally developed and which have even a greater bearing upon our lives. In a mining district in Pennsylvania the workmen were encouraged by competitive prizes to make beautiful gardens in back yards which had been filled with debris. The effect was not only to beautify the district and to give an agreeable change of occupation with physical betterment, but an increase of civic interest. The mental and moral effect of light and shade cannot be ignored. Excessive lighting brings out sordid details with unpleasant glare which is as bad in effect as insufficient light. The beauty of light sources should not be forgotten. Good lights for the poor will make the home beautiful. Collaboration is urged on the part of illuminating engineers, architects, school men, ophthalmologists, and others to secure broader instruction on the care of the eyes.

MORALITY AND TRUTH. We quote the following from an original medical article in a contemporary:

“Man, with sexual ferver like the glowing sun, is given overpowering ability and predominating force. Woman, with sexual delicacy as gentle as the lily white rays from the pale moon, is ever the victim of his aggression. Yet our social, men-made rules tend to reward the libertine for his sorrow-producing, heart-breaking, wrongful sex aggression, and crucify with cruel inhumanity the innocent weak one who has not been given natural aggressive force enough to resist successfully.”

Now why is such literary production as this considered moral? There are different kinds of men and different kinds of women. If the author has practiced medicine at all, he must have encountered men who emitted only lily white rays and, if he is competent to write about sexual matters at all, he must at least have heard of women like the glowing sun. And, as for our men-made rules, if the author has read the daily papers, he must know that there are at least three male glowing suns at present under eclipse in prison, and three female glowing suns free to attract new satellites. We agree heartily with the general principles of morality which the author is trying to inculcate and we are quite willing to agree with the general statement that there are more good women than good men. But why weaken a good cause by attempting to fortify it with statements that can be exploded at a touch of truth?

AMORPHOUS PHOSPHORUS IN SENILE ARTERIOSCLEROSIS. The author has used the red amorphous phosphorus in senile arteriosclerosis for several years. Given originally as a substitute for ordinary phosphorus in senile debility it was found that it was eliminated as amorphous phosphate of lime and that the lime elimination was thereby increased. Weil's experiments showed that the lime elimination in arteriosclerosis was diminished. Phosphorus has the property of combining with lime and increasing the lime assimilation. In the small doses which can be given when the ordinary phosphorus is employed the phosphorus will combine with the lime of the food and increase the amount of lime salts in the body. When given as amorphous phosphorus the dose is two grains or more several times a day, and with a lime-free diet the lime required for the combination necessary to secure the elimination of the phosphorus excess, is drawn from the abnormal lime deposits. This appears to be the rationale of the treatment and explains the good results obtained from its use. From *Diseases of Old Age*, by I. L. Nascher, M. D., to be published shortly by P. Blakiston's Son & Co., Philadelphia.

X-RAY DIAGNOSIS OF HAIR BALL IN STOMACH. Albert Ramsbottom and Alfred E. Barclay of Manchester, Eng., *Med. Chron.*, Oct., 1913, describe a case at first considered splenic tumor, the blood showing, however, 65% haemoglobin, 4,800,000 reds, 5,760 whites and no myelocytes. The diagnosis was made by combined fluoroscopy and palpation. The bismuth flowed to the left of the tumor, showing that, as the greater curvature was not displaced, the tumor could not be the spleen. By manipulation, it was shown that the tumor which gave no shadow itself, was within the stomach, and that it was freely movable. The diagnosis of hair ball

was, therefore, made in spite of denial of trichophagy and the diagnosis was verified by a successful gastrotomy. Later, the patient's brother stated that she had eaten all her hair during convalescence from scarlet fever, 20 years previously. "One of us" had suggested the same diagnosis on inspecting a radiograph of a case not directly under observation and operation has corroborated the diagnosis (*Arch. of the Röntgen Ray*, July, 1913.) The present case is of interest as being the first positive diagnosis of hair ball made in advance and also with reference to the discussion as to the relative value of radiography and fluoroscopy.

A SIMPLE TREATMENT OF BRONCHIAL ASTHMA. Gruenwald *Muench. med. Wochenschr.*, No. 25, 1913. By means of a laryngeal syringe, 1 c. cm. of a 1:10,000 solution of suprarenin (adrenalin) is injected through the glottis into the trachea. The patient immediately feels a sensation of cold, extending down into the epigastrium, and, soon after, the respiration becomes less difficult. A single injection apparently suffices to abort the attack, and indeed, in the writer's experience, to prevent its recurrence for several months. The treatment is most successful in the so-called idiopathic bronchial asthma; it fails in reflex asthmatic attacks and in the asthma of hay-fever.

CONGENITAL FAMILY STEATORRHEA. Garrod and Hurlley *Quarterly Journal of Medicine*, January, 1913. Boy, aged eight, subject from infancy to the passage from the bowel of liquid fat, which solidifies on cooling. He is the second of five children, whose parents are first cousins. The fifth child, now dead, was similarly affected. There are no other morbid manifestations and no indication of any disease. However much or little fat be taken, some 25 per cent. is thus lost in the stools, and it is supposed that he is the subject of a rare inborn error of fat absorption, "probably a Mendelian recessive characteristic," although so far investigation has not determined wherein the error lies.

HEMA-URO-CHROME—A NEW LABORATORY TEST FOR CANCER AND SARCOMA; FROM THE URINE. Theodore G. Davis, Ph. G., M. D., Los Angeles. *California State Journal of Medicine*, Oct., 1913. The urine should be carefully collected, fresh, no preservative should be added; unless when it is impossible to make immediate examination, Hydrochloric acid in the proportion of 1 part to 10 of urine may be added, this being the proportion used in the test.

Formaldehyde inhibits the test; and hexamethylin tetramin, formin or urotropin should be avoided where the test is to be applied.

After many experiments extending over considerable time, I determined the following to be the most satisfactory method of procedure. (While the quantity may vary, the proportions should be maintained.) Select a flat bottomed flask of about 180 cc.—or 6 fl. ozs. capacity, with a narrow neck that the ether may be brought up into it, easily seen and separated.

To 100 cc. of urine in the flask add 10 cc. of hydrochloric acid.

Heat over a slow fire until ebullition begins; turn out the fire, and allow it to cool slowly for a time, after which cooling may be hastened by immersion in water. When cold add 30 cc. of ether, cork, tying the cork to prevent evaporation. Turn the flask upside down several times during the six or eight hours required to complete the test. Avoid hard shaking which interferes with separation of the ether. While in cases of pronounced or extensive cancer the ether will acquire a markedly red color in as short a time as twenty minutes, I have found six or eight hours required for the complete extraction of the hema-uro-chrome by the ether. By the addition of cold water, the colored ether may be raised into the neck of the flask for observation, and be removed by a pipet into a bottle, corked, sealed and kept for comparison, if desired.

As a certain amount of the ether remains in solution by the contents of the flask, and some is lost by evaporation, I have depended upon the relative depth of color extracted by a certain quantity of ether from a definite amount of urine and hydrochloric acid, by the process described.

It might be possible by adding ether to the contents of the flask to replace that lost, making the quantity removed up to 30 cc. and make colorimetric comparisons, as is done in other color tests; but I doubt if it would be of any great value, for when some of the ethereal solution is allowed to evaporate in a white dish, the red hema-uro-chrome will be seen upon the upper portion, indican, when present, as an idigo-blue ring, slightly lower, while bile-acids and coloring remain in the bottom as a sticky brownish yellow mass. These in varying proportions must of necessity produce different tints; beside which the cleavage of hemoglobin into globulin and the several cleavage products of hematin, of which there may be at least three containing iron, and several not containing iron; indican, bile-acids and coloring, at times fatty substances of the amino-acid group, as well as crystals of ammonium chloride and urate, all of which modify the color of the ethereal solution. While the latter have pathologic significance, this simple test yields us three substances of considerable significance when in excess, viz., indican, bile-acids and coloring, and the hema-uro-

chrome. That these represent a pathological physiology, there can be no doubt. The red hema-uro-chrome of cancer is so pronounced, it astonishes the beginner; and occurs even with small growths not otherwise discernable.

Herein lies the great value of this test which enables us to make an early diagnosis, and apply treatment at a time when there is hope of cure.

That this hema-uro-chrome is produced by cleavage of hemoglobin by a product of the cancer cell, probably an enzyme, there is little doubt; but as the chemistry of the uro-chromes is so complicated, and statements concerning them so conflicting, I leave this for future investigation.

I am not aware of the previous application of the uro-chromes in the diagnosis of disease; except Erlich's aldehyde test for insufficiency of the hepatic cells, which should be applied to the urine under examination for cancer. (It is prepared and used as follows: Para-dimethylaminobenzylaldehyde 4; alcohol 16; water to 200. A few drops in 4 cc. of urine, when heated, becomes cherry-red if hepatic insufficiency exists.) This color is quite different from the red hema-uro-chrome of cancer. It aids in the elimination of cirrhosis of the liver, which is one of the confusing disease factors in all sero-diagnostic tests for cancer. Beside this I have found syncytioma, which is practically a malignant condition, and extensive suppurating processes, especially if tubercular, to give a somewhat red color to the ether, but not to compare with that given by cancer. A pink tint of more or less depth will occur when blood is in the urine from any cause; also in the urine of persons having malaria, "tick-fever" or Babesia, the several infections due to spirillum; "hookworm" and other intestinal parasites, as well as the primary and secondary anemias; but none of these give color comparable with that from the urine of a cancer patient, and should be readily eliminated.

It is well to remember that all laboratory tests are suggestive or confirmatory and liable to a percentage of errors, yet this test has proven positive in a larger percentage of cases than any other with which I am acquainted; even when the cancer was very small and unsuspected, not determinable by palpation or other diagnostic method. Again a negative finding will enable us to relieve that mental distress associated with a suspicion of cancer or of its recurrence.

ON THE USE OF PITUITARY EXTRACT IN OBSTETRICS. F. C. Harrison, B.A., M. B. Assistant in Pharmacology, University of Toronto. *The Canadian Practitioner and Review*, November, 1913.

Although the first use of pituitary in obstetrical practice was

made in England, but few papers dealing with its action have been published in English, while in Europe it has been so extensively used that a study of the large number of papers and cases now published enables one to formulate, with considerable precision, rules for its employment. This is especially true after one has given it, with success and failure, in one's own experience. This forms the justification for this paper.

In 1895, Oliver and Schaefer, in their series of experiments with organ extracts, followed up their papers on the striking effects produced by the injection of extracts of the adrenal by showing that extracts of the pituitary also produced a rise in blood-pressure. In 1898, Howell showed that it was the posterior lobe which possessed this property. This was confirmed by Schaefer and Vincent, and in 1901 Schaefer and Magnus showed that the extract of the infundibular portion increased very markedly the flow of urine. At this point the matter rested until 1906, when Dale, in the course of some observations on the action of ergot, noted that the extract of pituitary brought about a marked contraction. This observation, however, was entirely lost sight of until Blair Bell and Hicks, led by some experiments which they had on hand, obtained from Dale some pituitary extract and produced with it marked contractions of the uterus in pregnant rabbits.

In consequence of the result obtained, Blair Bell was led to use it in some obstetrical cases. He presented his observations before the Liverpool Medical Institution, November, 1909, and his paper was published in December. In it he refers to its use in two cases of post-partum hemorrhage, and one case in which it was used in the expulsive stage of labor. In September, 1910, Aarons of Edinburgh read a paper at the International Congress in St. Petersburg, in which he reported success in its use in six cases of post partum hemorrhage.

Hahl and Malinowsky have recorded the variations in intrauterine pressure with a bag, after the method of Westermarck, and in two cases reported by Hahl, there was some rise in tone, the movements being shorter and stronger, at shorter intervals and with increased intrauterine pressure; and Malinowsky shows a good tracing of a uterine tetanus. In other cases no increase in tone occurred, but only of movements. Such tetani are, not uncommon with ergot preparations, but apparently much less so with pituitary. Cases have, however, occurred. In one of the cases published by Rieck a tetanus evidently occurred, and is very well described by him. When it took place after the second injection, which was given six hours after the first injection, the patient stated that she felt the individual pains, but the examining hand could detect no contractions or relaxations.

Lieven also reports a case in which the uterine tetanus was so marked that the child's heart-rate fell steadily to 82, and there was a marked passage of meconium. Spaeth reports a similar case. He was, however, so unfortunate as to see the child die. Seitz and Roemer have each stated that they have also seen tetanus occur. Hamm, too, in one case which was brought to him after the child was dead and the patient had been in labor for a considerable period of time, injected pituitary, and regular movements set in. These, however, died away, and a second injection was given, which was followed in seven minutes by a tetanic constriction which lasted eight minutes, then regular movements for one or two hours, which gradually died away. A third injection produced another tetanus of eleven minutes' duration, then regular movements; and the fourth, tetanus of seventeen minutes, followed by regular movements, which led to delivery. He states that he has frequently seen the foetal heart-rate fall to 80; but in view of the rapidity of delivery in most cases, does not consider this dangerous. The above incident shows quite clearly, however, that the use of pituitary is not without some danger to the child, though danger to the mother seems very slight. In consequence, the foetal heart sounds should be, if it is at all possible, kept constantly under observation. This danger seems undoubtedly greatest when the drug is administered during the first stage.

The majority of observers, and especially those with the larger series of cases, have found that for the production of abortion, pituitary alone is insufficient. We might quote in this connection Schiffmann, who, out of seven cases, had three complete failures. Hell, Fischer, Nagy, Hirsch, Voigt, Merkel, Sellheim and Trapl have all pronounced against its use for this purpose.

Nor has it been of any great service in initiating premature labor. Trapl, Schiffman, Fischer, Nagy, Hirsch, Voigt, Foges and Hofstätter, Merkel and Sellheim may be quoted in support of this statement. Nevertheless, successful cases have been observed in which one or two injections sufficed; and in the production of both abortion and premature labor, it has proved in almost all cases a useful aid to other methods, such as dilatation by mechanical means.

Practically all observers are unanimous in declaring that it is of the greatest value in overcoming uterine weakness supervening after dilatation of the soft parts, and during the expulsive stage of labor. The effect, as a rule, is very prompt. The pains set in with great vigor in fifteen to twenty minutes or less, and are strong, rapidly leading to delivery; sometimes in a few minutes, and frequently within the hour. As mentioned above, pituitary has been used in at least 1,650 cases, but it is difficult to estimate in how many of these cases it was given during this

phase of labor. Not more than a dozen failures during this stage are recorded. The total number of complete failures reported is less than fifty, and these failures are largely amongst those cases in which it was used for production of abortion or premature labor, without other means being employed, or post partum. Several observers have found that it produces movements that are so rhythmical and strong as to be of the greatest value in converting abnormal into normal positions. There is, of course, no general agreement as to what constitutes failure; and as details in all the longer series of cases are not given, it is impossible to express the results recorded in the literature in a more exact fashion. Hofbauer, in his last forty cases, reports no failures; Cahn, out of eighty-seven cases, three; Aubert, 15 per cent. of failures; Foges and Hofstätter, out of sixty-three cases, three failures. These figures seem very typical; but it must be noted that other observers, with as large a series or larger, say nothing of failure.

The author cites four personal cases and gives the following conclusions, as well as a very complete bibliography:

1. Pituitary is of great value in cases of weakness in uterine movements after the soft parts are well dilated. Failure in these cases is rare, probably less than 1 per cent. The later in labor, but before delivery, the more striking the effect. The danger to the child and mother is very slight.

2. As an addition to same mechanical method, e.g., the Champetier de Ribes' bag, it is of great value in bringing on premature labor or abortion. In the former case it may be sufficient in itself, but there is some risk of tetanus of the cervix, or of the uterus, especially when repeated injections are required.

3. For delivery of the placenta its use is accompanied by the danger of tetanus uteri and retention.

4. In post-partumhæmorrhage a considerable percentage of failures may be expected.

When a need for a uterine stimulant arises in cases conforming to the above indications, I believe that pituitary is of the greatest value, and will act as in cases 1 and 2, which are typical of others in my experience.

I desire to express thanks to Dr. V. E. Henderson for the use of his laboratory, and invaluable assistance and criticism in preparing this paper.

ENORMOUS EMPYEMA. Dr. D. H. Galloway, Roswell, N. Mex., *Am. Med.*, Oct. 1913. The bulging of the left chest could be seen through the clothes and, on direct inspection, three saucer-shaped tumors were noted, each six inches in diameter and two inches

thick in the middle. One hundred and eighty-eight ounces were aspirated in the evening, to relieve dyspnoea and, the next day, a rib was resected and over a gallon of foul pus evacuated. The lung was seen as a lump, the size of a fist, near the apex. It never expanded and the heart never returned to its normal location but the patient survived nine months.

PITUITARY EXTRACT IN OBSTETRICS. Palmer Findley, M. D., Omaha, *Western Med. Rev.*, Nov., 1913. Pituitary extract finds its greatest field of usefulness in overcoming uterine inertia, and particularly in the second stage of labor.

The remedy is not to be used in normal labor, but should be restricted to cases in which the uterus is fagged, the cervix dilated or easily dilatable and the resistance of the soft parts and bony pelvis is not great. As a result of pituitrin short, feeble contractions are converted into long and strong contractions. The possibility of creating too strong and too prolonged contractions must be borne in mind, and it can never be foretold just what the effect of a given dose will be.

Polak speaks of a case in which the pains were so intense and so prolonged that morphine and chloroform were used to relax the uterus. A number of cases are on record in which the uterus was ruptured, the cervix badly lacerated and the child asphyxiated.

These unfortunate results can be largely averted by the judicious proportioning of the dosage and by eliminating all cases in which the cervix is not dilated or easily dilatable, and in which there is undue resistance in the vagina, the pelvic floor or the bony pelvis. Finally, by excluding cases in which a faulty presentation and position speaks for a difficult labor. Disregard of these contraindications in the administration of pituitrin may cause premature separation of the placenta, with uterine hemorrhage and death of the fetus, and the prolonged pressure of the tightly contracted uterus may injure the fetal head. To bring the presenting head within easier reach of the forceps a moderate dose of pituitrin may be given. It appears that the action of the drug is more positive in multipara than in primipara and at full term than in the earlier months of gestation. Its action is more prompt in the second than in the first or third stages of labor. It will not induce labor or abortion, nor will it aid in the expulsion of placental remains.

I have personally found it of very great assistance in hastening labor after the insertion of a hydrostatic bag. In this particular it becomes a very important adjunct to the usual means of inducing labor in placenta previa, eclampsia and such other conditions which demand the interruption of pregnancy. It is not a substi-

tute for ergot in post partum hemorrhage, nor is it to replace morphine in uterine inertia where the mother is exhausted for want of rest. But it is a most valuable remedy in uterine inertia in the second stage of labor, in the absence of great resistance to the presenting part.

REPORT ON URINARY ANTISEPTICS. Anson Jordan, *British Med. Jour.*, Sept. 13, 1913. Jordan reports the result of his investigation under the auspices of the British Medical Association. The work was experimental, the effect of chemical reaction and of various drugs upon urinary putrefaction and upon the growth of selected microorganism in the urine being observed *in vitro*. The following practical conclusions are drawn:

1. The acidity of the urine is readily increased to an extent of more than double the normal by acid sodium phosphate, (NaH_2PO_4 , average dosage gr. XV, t.i.d.) and to a less extent by benzoates. With large doses of citrates it is easily rendered alkaline (*e. g.*, sodium citrate gr. XXX, t.i.d.)

2. Putrefaction of the urine and the growth of the staphylococcus is aided by alkalinity and delayed by acidity in proportion to the amount thereof. The reverse is true with *B. coli*, but only to a small extent, its growth in both acid and alkaline urines being quite luxuriant.

3. Hexamethylenetetramine (urotropin) is not itself antiseptic, but acts by producing formaldehyde in the urine. This takes the place only in acid urine, the yield of formaldehyde, and therefore the degree of antiseptic power, being proportionate to acidity. This drug is by far the most efficient of all the urinary antiseptics.

4. Helmitol, citramine, hetraline and cystopurin, though they all yield formaldehyde in alkaline media in the test tube, behave precisely like urotropine in the urine, having no antiseptic power in alkaline urine.

5. Sandalwood oil, though not an efficient general urinary antiseptic, seems to have a specific action on the staphylococcus, which possibly accounts for its reputed favorable action in gonorrhea.

6. Benzoic and salicylic acids are fairly efficient urinary antiseptics, but of little use in alkaline urine.

7. Boric acid acts efficiently; its action being unaffected by alkalinity. It is the most efficient drug in alkeline urine we possess.

8. *Uva ursi* is quite a good antiseptic. Its action is certainly not due chiefly to the arbutin it contains.

TRANSPLANTATION OF OVARY. Dr. Hugh H. Davidson of London, Eng., reports three cases in the *Medical Review* of St. Louis, Aug., 1913. The first was unsuccessful. In the second, a uterine fibroid, not previously palpable, developed after the operation and the author very candidly questions whether it might not have been due to the ovarian stimulus. The third case was successful but the first menstruation, $3\frac{1}{2}$ months after operation, was profuse, lasting two weeks, in spite of ergot. The next menstruation lasted 4 days, under ergot, but was painless. Since then she has menstruated every month for nine days.

STATISTICS OF TUBERCULOSIS IN CHILDREN. Jules Comby of Paris in the Section of Pædiatrics of the International Congress of Medicine, reported 638 cases of tuberculosis in 1,675 necropsies—38%—in the compined hospital statistics of Paris. In the age groups, the number of deaths ranged from 13 to 415. We give only the percentages of tuberculous infection, as the figures in the report we have seen do not agree exactly:

Up to three months, 1.82% tuberculous.

Three to six months, 18.18% tuberculous.

Six to twelve months, 26.25% tuberculous.

One to two years, 40.72% tuberculous.

Two to five years, 60.% tuberculous.

Five to ten years, 67.15% tuberculous.

Ten to fifteen years, 71.23% tuberculous.

CULTURE MEDIUM FOR THE GONOCOCCUS. Sabouraud and Noiré *Annales de dermat. et syph.*, vol. iv, No. 7, July, 1913.

(1.) A litre of fresh milk is boiled for five minutes; (2) the casein is then precipitated with 2 c.cm. of hydrochloric acid, and the serum recovered by simple passage through a piece of linen; (3) the filtrate is added to half its quantity of water and the mixture neutralized with 10 per cent. soda solution; (4) it is then autoclaved at 120° for ten minutes; (5) the following are then added in the strength indicated: Peptone 1 in 100, glucose 1 in 100, urea 0.3 in 100, agar 1.6 in 100; (6) filtration through filter paper and division into separate test-tubes, which are sterilized for ten minutes at 110° C., completes the preparation.

The gonococci are incubated in twenty-four hours.

THE MEDICAL TREATMENT OF CHOLELITHIASIS. H. B. Anderson, M.D., L.R.C.P., (Lond.), M.R.C.S. (Eng.), Associate professor of Clinical Medicine in the University of Toronto, Toronto,

Canada. *Monthly Cyclopedia and Medical Bulletin*, November 1913. Following the teaching of Naunyn, Kehr, Aschoff, and other German investigators, a much broader view of the whole pathological process is being taken in the formation of gall-stones is regarded as a mere incident of a disease in which *bile-stasis*, *infection*, and *more or less widespread inflammatory manifestations* are of *primary* importance, and against which treatment, whether medical or surgical, must be directed. Attention is being directed more to *biliary stasis*, *infection*, and *inflammatory manifestations*, rather than focused on the *secondary result*—the calculi. Kehr considers the calculi in inflammation of the biliary passages in the same light as the fecolith appendicitis—a product of the inflammation. Since Aschoff has shown that *non-inflammatory cholesterin calculi* may occur, due to bile-stasis and certain metabolic disturbances, as in pregnancy, Naunyn's view as to the *invariable* presence of infection is no longer tenable on pathological grounds, though clinically the fact remains that these cases are unimportant so long as no infection occurs.

All these authorities believe that medical measures may be effective in relieving the inflammatory trouble in many instances, and in producing a virtual cure.

The belief that gall-stones might be dissolved was long held by many physicians. Naunyn thought this might occur in rare instances. This view has been largely discarded, but some recent investigations by Hansemann have reopened the question. He has apparently proved by experiments *in vitro*, and by transferring gall-stones from human beings to dogs, that gall-stones are soluble in normal bile, particularly stones composed largely of cholesterin. He believes, therefore, that if by treatment the catarrhal conditions of the bile-passages can be cured, inflammatory products removed, and the bile restored to its normal condition, the stones will be dissolved spontaneously. Treatment, according to him, should be undertaken with this aim in view, rather than with a view to direct action on the gall-stones. The article is accompanied by a number of illustrations, showing sets of gall-stones in various stages of being dissolved, the research reported establishing once more that normal bile under normal conditions does not permit concrements to develop, and will dissolve in time those already formed. The peculiar shape of the gall-stones found at operation in many cases is due to their being partly dissolved. Hansemann's work, if confirmed, will obviously have an important bearing on treatment.

In proportion to the general incidence of gall-stones in from 5 to 10 per cent. of autopsies, the occurrence of many of the most serious complications, such as cancer, gangrenous cholecystitis, gall-stone ileus, etc., is so infrequent that the danger of their de-

velopment in a given case is too remote to constitute *in itself* a reason for operation as a *general procedure*. Is it correct to assume that recourse to early operation would appreciably reduce the general mortality by forestalling these rarer complications, when in the majority of all cases gall-stones are latent, or at least do not produce symptoms sufficiently definite to permit of a diagnosis, and especially when the course of the disease will give timely warning in most of the diagnosable cases and direct them to the surgeon? I believe that many clinicians will agree with Kehr, that it is fortunate that we are unable, by the X-rays or other means, to recognize the quiescent cases, if the presence of gall-stones *per se* is to be taken as an indication for their removal.

But again, it is claimed that operative cures are permanent, whereas medical cures are merely palliative. This statement is scarcely in accord with our knowledge of the pathology of the disease or our clinical experience. After operations the bile-stasis, infection and inflammatory changes must subside, and the underlying causative factors be removed, before the patient can be regarded as cured. If the gall-bladder is not removed, and if the causes underlying the original infection which produced the gall-stones remain or recur, on what grounds have we a right to claim that the stones will not form again, as in the first instance? Operative procedures have not been in vogue sufficient length of time to determine definitely how frequently recurrences may take place, but that they do occasionally is well known. I have at present a case under observation with symptoms of recurrence six years after operation. Gerster, in a paper on "Unsuccessful Surgery in Disorders of Bile-ducts," reports 11 per cent. of relapses in 57 operative cases, and quotes Ochsner's failures in 15 per cent. in *calculous* and 54 per cent. in *non-calculous* cases. It is therefore apparent that the claims of *certainty of cure* and *permanency of result* after operation cannot be accepted without qualification.

The danger from operation, even in the most skilled hands, is not to be overlooked. The mortality in Mayo's series of 4,000 cases was 2.57 per cent., and in the cases collected by Bland-Sutton from the English hospitals in 1905, 17.7 per cent., the results varying with the conditions calling for relief and the experience and skill of the operator. Nor must we confound recoveries from operation with the cure of the patient's ills. As with medical cures, only time can show the permanency of relief. Gerster and others believe that drainage after operation is essential for the relief of the infection, and undoubtedly this is the case; but it has been found that in non-calculous cholecystitis, where the infection and its sequences alone are to be dealt with, operation frequently fails to give relief.

HEREDITARY HYPOPITUITARISM. Miss Nellie Lambert of London, is said to weigh 563 pounds, and is alleged to be the heaviest woman in the world. She is a great-granddaughter of Daniel Lambert, of Leicester, England, also reputed to have been the heaviest man of his time. This would seem to be an instance of hereditary hypopituitarism, a condition which, however, if associated with genital infantilism, should ultimately prove self-exterminative. —*Boston Med. Jour.*

THE TREATMENT OF PRE-TUBERCULOUS STAGE OF CONSUMPTION. Alfred S. Gubb, M. D., L. R. C. P. Lond., M. R. C. S. Eng., D. H. P., etc., Aix-le-Bains, Savoie, France (*Medical Herald*). Except for the discovery of the bacillus of tuberculosis, the most interesting outcome of recent research has been to show that the germs of tuberculosis will only grow on suitable soil, that is to say, soil which has been prepared for infection by inherited or acquired debility. It is this stage of liability to infection that constitutes the so-called pre-tuberculous period, the investigation of which has revealed several interesting facts.

Thanks in a great measure to Professor Albert Robin of Paris, who made a special study of the physiological features of this pre-tuberculous period, we know that it is characterized by a curious but striking instability of the mineral constituents of the tissues, notably the chlorides and phosphates. This tendency to phosphaturia of course is by no means peculiar to tuberculosis for in a more or less fugitive form it is met with in many morbid states, from simple dyspepsia to albuminuria. The distinguishing character of the leakage of phosphates occurring in connection with tuberculosis is its constancy. It is this constancy that constitutes its gravity, because, in the long run, it determines pronounced impoverishment of the tissues in respect of their mineral constituents.

It would be rash to assume forthwith that the amenability of the tissues to tuberculous infection is the direct, inevitable consequence of this loss of phosphates, because the inability to hold and to retain the mineral elements may, after all, be merely an outward and visible effect of the same vital weakness that creates the proneness to infection, just as the loss of appetite determines a state of debility that predisposes to infection from lack of nourishment.

However produced, and whether due to an inherited inability of the tissues to maintain their nutrition or to the disturbing influence of chronic intoxications and other causes of organic debility, the persistent phosphatic waste engenders a state of malnutrition that places the organism in a manifest condition of inferiority.

The recognition of this predisposing process affords a clear indication for treatment, and the measures that have for their object the remedying of this source of debility and the cutting short of the pre-tuberculous stage constitute the prophylactic treatment of consumption. Just as drainage and the application of lime to an impoverished land wards off mildew and blight that attack imperfectly nourished vegetables, so hygienic measures and the administration of lime salts to persons who are threatened with consumption tend to enable the tissues to resist their natural enemies.

That this is no mere theoretic conception is shown by the comparative ease with which threatened consumption, and even the incipient stage of the actual disease, can be averted or cured by appropriate treatment. Remove the cause, said Hippocrates, and the effect will disappear, and in most instances it is possible to remove the cause of the predisposition to phthisis.

But before we discuss the treatment there is another physiological factor that calls for notice, namely, the persistently low arterial tension. So constant is this low blood pressure that it is now regarded, in the absence of any other explanation, as diagnostic of impending consumption. A young man apparently in the enjoyment of a fair standard of health, whose blood pressure is persistently below 110 millimeters should be looked upon with suspicion, although for the time being there may be no signs of pulmonary mischief accessible to the stethoscope.

The two principal features of the pre-tuberculous stage of pulmonary tuberculosis are, therefore, increased elimination of phosphates and a persistently low blood pressure.

Other disturbances of the vital processes have been noted—changes in the respiratory quotient, for instance—which likewise possess grave significance, but we need not dwell upon these, seeing that they have no direct bearing on treatment.

Inasmuch as the phosphatic waste may conceivably be due to tissue debility, it behooves us to place the organism under conditions favorable to its recuperation, and these may be summed up in the therapeutical trinity: fresh air, good food, and rest. These alone, however, may not suffice to restore the nutrition of the tissues. There is lost ground and arrears of nutrition to be made up, and it is asking too much of the jaded organism to expect it to “pay in advance,” that is to say, not only to secure the adequate nutrition of the tissues which it has so far been unable to obtain, but also to restore the debit balance created by past depredations.

Medicinally the plan of campaign is already traced. We are called upon to make good the phosphate waste (and incidentally

the chloride waste as well), and to stimulate the processes of nutrition by raising the blood pressure to a higher level. Higher arterial tension means freer irrigation of the tissues, freer irrigation of the tissues, in its turn, means improved nutrition. Now lime and strychnine both tend to raise the blood pressure, and if they be given in the form of phosphates, all the therapeutical indications will have been fulfilled.

Some phosphorous compounds, however, are more readily assimilated than others, and for this reason it is better to employ the hypophosphites. In order to facilitate their apprehension by the tissues the phosphorus should be administered in combination with various bases, and advantage may be taken of the opportunity to introduce medicinal tonics, such as quinine, iron, manganese, potassium, etc. Such a compound is presented in the well-known Fellows' syrup, which must have been devised in deference to the principles enunciated above, and has justified its existence by the results that follow its employment.

Its success, in all probability, is due to the fact that, by enhancing arterial tension, it enables the tissues to avail themselves of the accompanying phosphorus salts and so to reconstitute their nutrition. Under its influence, indeed, the subject gains in weight while his digestion, in common with the other vital functions improves; and the taste of physiological misery gradually disappears.

DOES APPENDECTOMY ALWAYS RELIEVE SYMPTOMS? Scudder and Goodall (*Publications of Massachusetts General Hospital*), analyzed the results, a year after operation, in 640 cases of appendectomy, of which 28.8 per cent. were females and 72.2 per cent. males. Post-operative pain was ascribed to asthesions in 88 cases. They conclude that complete relief occurs in 94 per cent.—which seems very high when we consider the numerous typic cases according to history, which shatter our snap diagnosis by stating that the appendix has already been removed.

CHRONIC AND RECURRENT DISEASES OF THE SKIN IN RELATION TO THE HEART AND CIRCULATION. David Walsh, M. D., Edin., senior Physician, Western Skin Hospital; London, England, *Medical Review*, September, 1913, concludes a clinical article as follows:

- 1 That a large number of chronic and recurrent skin eruptions are associated with disease of the heart.
2. That latent or unsuspected heart trouble is comparatively common amongst patients attending a skin hospital.

3. That prognosis in skin diseases in many instances depends on the state of the heart, and that attention to the state of the heart is imperatively demanded in a large number of skin affections.

4. That the circulatory inadequacy which apparently determines the onset and duration of many chronic and recurrent skin eruptions may likewise affect internal organs in a similar manner.

5. That what is called "idiosyncrasy" may in many cases simply describe a pathological instance of healthy reaction to moderate traumatism due to circulatory defect. In this way the irregular incidence of trade and drug eruptions may in many cases be accounted for predisposition being in such cases merely another name for central circulatory inadequacy with its connected disturbance of the balance of capillary circulation.

6. That in all cases of delayed healing of the skin from moderate traumatism of any kind, e. g., mechanical, thermal or septic, the state of the heart and circulation should be carefully investigated.

7. That in some cases the development of an acute cutaneous malady, such as a sun dermatitis, may afford delicate clinical evidence of failure of cardiac compensation.

8. That a similar process of impaired or pathological reaction to traumatism may be duplicated in the deep tissues of the body as well as on the visible skin, and that inadequacy of the capillary circulation may explain the development of various acute, chronic and recurrent diseases of internal organs following internal traumatism (cancer may possibly fall within this category).

9. That the delayed healing of wounds and the persistence of secondary traumatic complications may depend ultimately upon central circulatory defects, and may thus yield clinical evidence of heart disease with failing compensation not recognized by the text-books.

10. That where it is proposed to administer any drug, such as mercury or arsenic, which is known to act as a tissue irritant, the possession of a normal or a fully compensated central circulation should be made a *sine quâ non*.

11. That the dermatologist who wishes to do justice to himself and to his patients should keep an eye upon the heart, as there is evidence to show that many diseases of the skin may be materially modified as to diagnosis, prognosis and treatment by their relation to the circulation.

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ORIGINAL ARTICLES

The right is reserved to decline papers not dealing with practical medical and surgical subjects and such as might offend or fail to interest readers. Contributors are solely responsible for opinions, methods of expression and revision of proof.

Cardiospasm of Thirty Years' Duration

BY ELI H. LONG, M.D.
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THE following case has presented itself for restudy and treatment after an interval of twenty-seven years. With the limited earlier diagnostic methods the condition was believed to be diverticulum of the esophagus. The case was reported in 1886* with the following history:

"C. W., aged 20, cigarmaker by trade, but has not worked at it since December, 1884. Has never been strong. Has been ailing for three years, with symptoms referred to the digestive apparatus. He came under observation February 14, 1885, complaining that he could not retain his food. He was somewhat emaciated and weak, weighed 99 pounds, with pulse 144, and temperature normal.

His food was regurgitated rather than vomited, and he designated a region at the right of the sternum, on a level with the nipple, where he said his food and drink seemed to remain instead of going into the stomach. He would experience pain in this region until regurgitation occurred, which was generally soon after eating. These symptoms were sometimes very bad and at other times not so distressing. His heart sounds and respiratory murmur were normal. Bowels were irregular, appetite fair, and urine normal. He informed me that he had been treated by several physicians without any permanent benefit. His symptoms led me to consider the case as one of 'regurgative disease,' so termed by Sir Henry Marsh.[†] Accordingly he was ordered to take systematic exercise, cool baths, and tonics in the form of elixir calisayæ and liquor potassii arsenitis, the latter in two-drop doses before meals. Three weeks later he reported a gain in

**Medical Press of Western New York*, February, 1886.

†Habershon, *Diseases of the Stomach*, 3d ed., p. 220.

weight of four pounds and symptoms somewhat improved. The improvement, however, was not permanent and he soon ceased taking exercises in the gymnasium, and, after several changes in medication with no benefit, that also was discontinued. He was able to walk about and do some work, but at times his trouble would be so bad as to render him unable to do anything.

"Was called to see him again on July 9th, and found him rather weaker than usual, he having been unable to retain much of anything for several days. From a careful study of his swallowing at that time I was led to the conclusion that the trouble must be in the esophagus and that, as the patient thought, the food was rejected before reaching the stomach. Anything that passed down into the stomach was retained and digested. It occurred to me that the trouble might be a spasmodic stricture of the esophagus. On the next day I took the patient to see Dr. Park in consultation. At this examination he passed a good-sized esophageal bougie into the stomach, without the slightest muscular resistance, which rather set aside the idea of a stricture. After further careful study of the case the diagnosis was made of diverticulum of the esophagus to the right side. The prognosis was accordingly unfavorable. Feeding for a time by means of the stomach tube was recommended, but was rejected by the patient. Seeing him several days later, he said he felt better since the examination, and had been able to retain nearly everything he took. Since then, however, he has been about as before, although at the present time his appearance is better than six months ago. I may add that his pulse is now steadily 90 and his temperature normal."

The subsequent history is one of continued difficulty in getting food into the stomach. Swallowing never has become normal, there having been always some stoppage of food above the cardiac orifice. Five years ago he was obliged to cut out solids, subsisting since on milk, soaked bread, cereals and eggs. Still he has been able to follow for years the occupation of candy salesman, as wholesaler to small stores, having his own route and using horse and wagon. He has lately given this up because of increasing difficulty of maintaining nourishment and the development of a positive degree of general muscular weakness. January 17, 1913, at the age of 48, he entered the Buffalo General Hospital.

Family history: Father living and well at 84; mother died at 76; three brothers died with scarlet fever; one sister living and well. There is no history of chronic disease or taint in family.

Personal history: Had scarlet fever when a child, but no other disease except the present ailment.

His habits have always been good; takes a glass of beer occasionally and smokes moderately; denies any venereal history.

Present appearance: He is somewhat emaciated, weighing 116 pounds; gait unsteady, with general deficiency of muscular power; voice hoarse and low-pitched. Sight is defective, requiring dark glasses to protect eyes from strong light. Temperature is normal, pulse 85.

Complaint: Difficulty in swallowing, which has persisted for thirty years and which for the past three years has been accompanied by an increasing sense of pressure and pain in the course of the esophagus. Muscular weakness. Frequent vomiting, sometimes of material taken a couple of days previously. Cough, not constant, but rather troublesome at times when eating, when he also is liable to "choke up" and have difficulty in breathing. Appetite is poor and bowels constipated.

Physical examination: Muscular atrophy is quite evident and seems general, especially marked in the small muscles of the hands. Reflexes generally exaggerated.

Lungs: Respiratory movement poor with diminished breathing. Marked depressions above both clavicles. Percussion resonance increased over entire right chest anteriorly, diminished in suprascapular regions and extending on both sides of spine to bases posteriorly. Breathing sounds vesicular, but diminished in volume. There are no rales to be heard.

Heart: Size not appreciably altered. Sounds are weak but well balanced. There are no murmurs. Blood pressure, 140.

Abdomen: Liver dullness from fourth interspace in nipple line to one-half inch below costal margin, where it is palpable. Spleen dullness normal. There are no palpable masses or tender areas. A few lymph nodes palpable in inguinal regions, none in cervical or axillary.

Blood: Hemoglobin, 80 per cent.; red cells, 4,340,000; leucocytes, 5,700.

Differential:

Polymorphonuclears	50%
Small lymphocytes.....	33%
Large lymphocytes.....	7%
Transitional forms.....	8%
Basophiles	2%

Urine: Out of three analyses a very faint trace of albumin is reported once. Microscope shows a few leucocytes in each and occasional fine granular casts in one. Urine generally concentrated, no sugar, indican normal.

The Von Pirquet test is positive. (Jan. 25th.)

The Wassermann test is negative. (Jan. 30th.)

Sputum: (Jan. 20th.) Scanty; contains numerous diplococci, both intra and extra-cellular; short, thick bacilli, in chains of 4 to 8; no tubercle bacilli.

Muscular and nervous systems: (Dr. Putnam.) Muscular atrophy pronounced in small muscles of hands, and more marked on left side. Absence of power adduction of little fingers on both sides. Upper arm and shoulder group of muscles show good tone. Muscles of palate are weak, more marked on left side.

Reflexes of upper extremities are all exaggerated, also the knee jerks. Babinski, Kernig and Chaddock signs all negative.



LATERAL VIEW.

There is no ankle clonus. The condition is regarded as progressive muscular atrophy of the arm type (spinal).

Examination of eyes showed the conjunctivæ rough, and a superficial scar on left cornea. Temporal margins of discs are pale—probably atrophic. Pupillary reflexes active to both light and accommodation.

Inasmuch as a diagnosis of esophageal diverticulum had been made years earlier, chief interest centered in the upper digestive tract. The newer methods of diagnosis, unknown when the case was studied previously, gave reports as follows:

X-Ray examination: (Dr. Plummer.) Bismuth solution swallowed. Anterior view: Both lungs show dense areas. There is a distinct shadow along left of spine, probably esophagus with bismuth solution.

Lateral view: Bismuth solution has passed into the stomach. Esophagus shows distortions at two points, which may be caused by an irregular diverticulum, but seems more likely to be a tumor of mediastinal space involving wall of esophagus.



ANTERO-POSTERIOR VIEW.

In connection with the above opinion, repeated careful examinations excluded aortic aneurism.

Larynx and esophagus by direct examination: (Drs. Hinkel and Fairbairn). January 29th. The arytenoids are relaxed, slightly edematous in appearance and somewhat "clubbed." A slightly nodular, sessile tumor, about one-fourth inch in diameter, projects from the interarytenoid space above the plane of the vocal bands. Its color is the same as that of the laryngeal mucosa. Soft palate is relaxed and almost immovable with phonation. The left arytenoid and the left vocal band are immovable both with respiration and phonation. Vocal bands are pink but not swollen.

Esophagoscopy shows a greatly dilated esophagus without any diverticulum or adhesion being found. The fundus of the dilated portion contains semifluid accumulation which prevents a view of the cardiac orifice.

February 4th. After lavage of the dilated esophagus, examination with Bruning's esophagoscope shows enormous dilatation down to the cardia; musoca fairly normal; passed a small olivary bougie $18\frac{3}{4}$ inches from the teeth and through cardia with but little difficulty, but with moderate resistance each way.

February 6th. Passed a large olivary bougie well into the stomach. Laryngeal irritation and even dyspnea frequently attended the passage of instruments.

As the result of these observations the diagnosis of the esophageal condition as one of cardiospasm seems entirely proper. The accompanying muscular weakness and atrophy must be regarded as independent, at least as to origin, having developed later than the esophageal disorder; although the consequent disability has undoubtedly been aggravated by the lack of sufficient nourishment.

Treatment was then directed toward relief of the spasm of the cardia. The Sippy dilator was used by Dr. Eschelman, its introduction being usually preceded by the passage of a large olivary bougie. From February 14th until March 10th dilatation was practiced twice a week, or eight times, applying a pressure of from 150 to 200 m. m., as measured by the "Tycos" blood pressure gauge. Improvement followed the first dilatation and continued, so that after the eighth treatment the patient was allowed to rest from treatment until March 29, when, before leaving the hospital, another dilatation was employed. The nearly three weeks' interval without treatment showed no retrogression. During the period of treatment the patient gained about six pounds in weight.

Present condition of patient (November 1, 1913): He has been without treatment for seven months and at work at his former occupation for six and one-half months. He is able to eat an ordinary variety of food, including fruits and meat. Pain and pressure at meals is slight and of short duration, accompanying a sense of stoppage which always occurs when food or drink is swallowed. This sensation is temporary and disappears with "dropping of food into the stomach." Patient can always tell when the latter occurs. He thinks all food reaches the stomach by the time the meal is ended. He has gained eight pounds in weight. He is stronger in so far as better nutrition can contribute in his case, but the muscular atrophy is still evident and the actual muscular power is not much increased.

The cough and "choking up" in connection with eating have disappeared. His voice still has the same hoarse quality.

It is evident, therefore, that the spasm at the cardia has lessened very greatly under the treatment by dilitation; while the muscular condition remains stationary and justifies the diagnosis of progressive muscular atrophy.

RAPID CLINICAL METHOD FOR THE ESTIMATION OF UREA IN URINE. By E. K. Marshall, Jr. (*Journal of Biological Chemistry*, April, 1913. The method consists in incubating a portion of urine with an aqueous extract of soy bean flour, all the urea being thereby transformed into ammonium carbonate through the action of an enzyme existing in the soy bean. To prepare the extract, 25 gms. of soy bean powder are mixed with 250cc. of distilled water and allowed to stand an hour. 25cc. N/10 HCl are then added, allowing the mixture to stand a few minutes longer. This precipitates most of the protein, which is then removed by filtration. A few drops of toluene are added to the filtrate as a preservative. The urea determination is as follows: Two 5cc. portions of urine are measured into flasks of 200-300 cc. capacity and diluted with distilled water to 100-125 cc. 2 cc. of enzyme solution are added to one flask, a few drops of toluene to each, and the solution allowed to remain well stoppered at room temperature over night. The fluid in each flask is then titrated to a distinct pink color with N/10 HCl, using methyl orange as an indicator. The amount of HCl required for the urine and enzyme solution, less the amount used for the urine alone and the amount (which must have been previously detained) required to similarly titrate the enzyme solution corresponds to the urea present in the urine. 1cc. N/10 HCl corresponds to 0.6 gm. per liter of urea in the urine. The error of the method is under 2 per cent.

FISH DIET AND IODINE CONTENT OF THYROID. The observation that a fish diet increased the iodine content of a dog's thyroid was made some time ago. In the October number of the *Biochemical Journal*, A. J. Cameron states that definite evidence has been obtained that large quantities of iodine are constantly present in the thyroid in some species of salt-water fishes. The largest amount was found in the thyroid of *scyllium canicula*, and in one case much more iodine than in any thyroid previously reported upon. The research suggests that fish thyroid would be a valuable therapeutic agent, and that the iodine value of the diet plays an important part in determining that of the gland.

Some Orthopedic Conditions in the Neighborhood of the Shoulder Joint

BY ROLAND O. MEISENBACH, M.D.
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THE shoulder joint is usually injured in one of two ways: By direct force; that is, the shoulder coming in contact with some object, as is often the case in a fall onto the sidewalk or by indirect muscular action; that is, the person may suddenly bring the arm into play and cause a counter muscular resistance; as, for instance, in attempting to prevent a fall.

The shoulder joint is one of the joints of the body which is very frequently neglected, and sometimes when treated the best results are not obtained. This is, I believe, due chiefly to the fact that the shoulder joint is one of the most difficult joints to immobilize or to hold in the position which may be most favorable to one or the other forms of treatment. However, upon making the proper diagnosis, the results will be more pleasing than is generally supposed, if the condition is thoroughly understood.

In this paper I will not undertake to enumerate the many constitutional disturbances which may interfere with the shoulder joint motion as, for instance, in the hypertrophic, infectious, tuberculosis, or sarcomata and others, but wish to emphasize those which may follow injury, even though the injury is not a pronounced one, but may encumber the individual many months after the injury. This annoyance may manifest itself in usually one or two ways: either a full, active motion is not possible, or there may be a constant or an intermittent pain in the chest or down the arm, sometimes localizing in the shoulder joint itself. My attention has been called to a number of striking cases, in which relief was offered, in some instances by means of simple procedures and in others by operation. One of the most common injuries to the shoulder is the injury to the subdeltoid or acromion bursa.

INJURY TO THE SUBDELTOID BURSA.

The subdeltoid bursa may often be the seat of injury following cases of dislocation or fracture in which the dislocation or fracture has been adjusted satisfactorily, but in which the patient complains of pain on pressure over the area of the bursa or in certain motions of the arm. Anatomically, the bursa varies considerably, sometimes very small and again very large, so that when injured its function is not properly maintained and the mechanism of the shoulder is naturally impaired. This is especially true when there is a predisposing diathesis. When the

subdeltoid bursa is involved, a person is usually able to raise the arm over the head and in many directions, but the motion is painful, as the two walls of the bursa are usually adherent and may be thickened so that when the person raises the arm beyond the shoulder the bursa has difficulty in passing under the acromion process. In locating this bursa, and especially in subdeltoid bursitis, Dawbarn's sign is very helpful. With the arm hanging



RUPTURE OF THE SUPRASPINATUS MUSCLE OF THE LEFT ARM.

Figure shows patient attempting to raise both arms and using all possible strength. Can raise right arm but not the left.

a.—Limited action of the deltoid, with rupture of supraspinatus muscle.

b.—Action of the deltoid and the supraspinatus muscles together.

(Amputation of right arm does not enter into present condition of the patient, but was probably a factor in producing rupture of the supraspinatus muscle of the left arm by over-use of the left arm.)

down, pressure over the site of the bursa will elicit pain, whereas, when the arm is raised up to the level of the shoulder, pressure over the same anatomical landmark will not elicit pain, the bursa having glided under the acromion process by the elevation of the arm. In fracture or dislocation of the shoulder the bursa may be injured and convalescence may be retarded to many months if the condition is not observed, and the retardation may be credited to an improper replacement of the original injury; whereas, in reality, there is simply a complication present.

RUPTURE OF THE SUPRASPINATUS MUSCLE.

In the subdeltoid bursitis injury by direct violence is usually the cause whereas, in rupture of the supraspinatus muscle indirect muscular action is the common cause. The function of the deltoid is to elevate the arm almost to the level of the shoulder, after which the supraspinatus comes into play and assists in raising the arm higher up. The function of the supraspinatus muscle, which, by the way, is a very small and short muscle, is two-fold. First, to remove the capsule of the joint as the arm is raised so that the head of the humerus will not impinge upon the capsule between the acromion process, and secondly, to assist the deltoid in elevating the arm above the shoulder. In some individuals this muscle is well developed; whereas in others it is only a few fibres and is difficult to find, especially when there is much bleeding, or if the injury is of a number of months standing. Whenever the supraspinatus muscle is ruptured, completely or partially, the individual is unable to lift the arm above the level of the shoulder, no matter how much effort is used. In some cases the diagnosis may be easily passed off as hysterical joint, but it is not easy to understand why a laborer with a large family, who is unable to work although well-muscled and healthy otherwise, will be unable to bring his arm above his shoulder, as in a case which came under my care. It is also not uncommon to see in the same individual a bursitis as well as a rupture of the supraspinatus muscle. This is especially true in the severer types of injury. The outside appearance of the shoulder joint in rupture of the supraspinatus muscle may be quite normal, but if of long standing, the deltoid will become somewhat atrophied by disuse and the contours of the two shoulders will be markedly different.

BRACHIAL PRESSURE WITH NEURITIS AS A SYMPTOM.

Considering the arm and the shoulder as a whole, we find that the scapula supporting the arm is really a saddle on the upper portion of the torso, held loosely in place by muscles and ligaments, and emerging from the axilla we have a meshwork of major nerves, arteries and veins passing in front and beneath this saddle, which radiate down the arm. In very heavy individuals the weight of an arm is considerable. If the individual is inactive or has a sedentary occupation much of this weight is borne by the saddle, with consequent pressure upon the structures beneath, chiefly the brachial plexus. The pressure will be manifested chiefly by pain in the periphery, so that when certain motions of the hand and fingers are made the arm will be painful. Usually in these people there is a tendency toward forward-stooped shoulders, and this aggravates the condition.

The weight of the arm is pulling the shoulders forward and downward, which increases the pressure upon the brachial plexus.

REFERRED PAIN TO THE NEIGHBORHOOD OF THE SHOULDER DUE TO
SLIGHTLY DEFORMED SCAPULA.

If one carefully examines anatomical specimens of scapulæ, both of children and adults, one is impressed immediately by three entities: First, the thinness of the scapula in children, in whom it is almost translucent; second, the variation in the superior border or tip; and third, the difference in the superior angle which rests upon the ribs.

In again considering the shoulder as a saddle, we find that we have two groups of muscles, the superior and the inferior, which oppose each other in the function of holding the shoulders erect and supporting the weight of the arm. In the scapula of the normal child the tip of the scapula will be smooth and bent backward, so that when active motion of the shoulder is attempted the scapula will glide easily over the ribs. On the other hand, if by virtue of the stoop shoulder the child is allowed to grow up in this way, there may develop a sharp-pointed scapula which will not glide as easily, so that when the child attempts an occupation there may be an irritation at the point of the scapula, with referred pain to the shoulder joint or, as in a few cases, to the anterior portion of the chest. This condition may be found in otherwise healthy appearing people, but upon examination it is found that the shoulders are forward, and upon deep palpation with the thumbs the angles may be felt in some cases to be forward. The sharpness, however, cannot be determined absolutely. With the thumbs above the spine of the scapula of each shoulder, the shrugging of the shoulders forward and up may elicit crepitation in the affected shoulder. It usually appears bilaterally, but in some instances in my experience the crepitation has appeared unilaterally. This is especially true when the chief cause is that of occupation; as, for instance, throwing a switch. The chief symptom is the subjective symptom of pain, but may be a pain which is not definitely localized, but which may involve the upper portion of the trunk and may radiate to the forward portion of the chest. The motions of the shoulder, as a rule, are not impaired, but seem freer than normal. The relief of this condition naturally suggests itself in two ways: one, and especially in children, whose scapulæ can be easily molded, is to correct the posture by means of a back brace or otherwise. In the adult, where the condition warrants, operative interference gives permanent relief. The cases herewith cited are those of the various types which have come under my observation:

1. INJURY TO THE SUBDELTOID BURSA.

Case I. Mr. D., about forty years old, fell on the sidewalk, injuring his shoulder. Up to that time he had been actively at work, using the arms normally. After the injury, which occurred several months before he consulted me, he had been unable to work, owing to the fact that he could not raise his left arm, and it seemed to be gradually growing stiff. Examination showed a swelling of his left arm which suggested fluctuation in the region of the deltoid bursa. On deep palpation over the area of the bursa, patient would jump. After a careful study of the case, patient was sent to the hospital and the arm manipulated. A few months later patient returned to work.

2. RUPTURE OF THE SUPASPINATUS MUSCLE.

Case II. Mr. O., fifty-nine years old, referred to me June 29, 1909, by Dr. Lyon, with the following history: A year ago, while standing on the platform of a Pullman train, the coupling broke and the train started and the patient was deposited on the roadbed, throwing out both arms. He was taken to a hospital and examined and the chest strapped. He also sustained a sprain of the right ankle and fracture of two ribs, which yielded to treatment. He has been unable to use his right arm, some motions, especially raising the arm, being painful, and unable to get his arm above the level of the shoulder. Physical examination shows that the patient stands with right shoulder drooping downward and slightly forward. There is less fullness in the clavicular portion of the right shoulder than the left. Patient cannot get arm in abduction beyond level of shoulder without bringing the scapula into play; Dawbarn's sign present, slight crepitation present upon rotation; on rotating humerus inward, limitation of motion exists; external rotation with elbows at right angles limited. The X-ray showed that two ribs had been broken. Diagnosis: Rupture of the supraspinatus muscle, with a probable subdeltoid bursitis.

3. BRACHIAL PRESSURE WITH NEURITIS AS A SYMPTOM.

Case III. Rev. R., referred to me by Dr. Lyon, April, 1910, complained of pain down his arm, chiefly in his hand, while sitting at his desk. Patient unable to put on his coat or button it without pain, chiefly manifested in the hand, which would not yield to ordinary treatment. Diagnosis of brachial pressure made by Dr. Lyon, confirmed by myself. Physical examination showed contour of both shoulders equal, no special tenderness over bursa; active motion somewhat painful in certain directions. The attitude of the patient was somewhat toward stooped shoulders, the arms hanging forward. X-ray showed no general diathesis.

Stoop shoulders were corrected and the arm raised so that the weight was taken off the brachial plexus. Symptoms disappeared as long as the weight of the arm was removed from the plexus, but occurred as soon as the shoulder flap loosened. A webbing shoulder brace was then worn and the general tonicity of the shoulders gradually improved and poise and attitude of the patient changed so that after six weeks patient was able to go without apparatus. Symptoms have not recurred since.

4. REFERRED PAIN TO THE NEIGHBORHOOD OF THE SHOULDER DUE TO SLIGHTLY DEFORMED SCAPULA.

Case IV. Miss L., assistant in the office of a hospital, age 28, consulted me August 14, 1911, with a history of having pain in both hands, with general fatigue. Periodically for the last few years she had been treated by means of drugs, hydrotherapy, electricity and blue light by her family physician. The condition, fatigue and pain in the hands grew worse, especially while sitting on a high office chair at a high desk. Examination showed a very well-muscled, heavily-built young woman, good color and rather tall, standing with drooped shoulders and bent forward slightly, all neck muscles rather tense. Forward shrugging of shoulders elicited crepitation, especially noted on left side, but also some on right. Crepitation present in active and passive motion, angles of scapula forward and deep seated. Operation was performed August 16th, by exposing both angles of the scapula, which were found to be very sharp, so much so that they punctured my rubber gloves. The sharp angles were removed and the shoulders held in position during convalescence. Complete recovery; symptoms disappearing in two weeks.

Mr. F., a switchman, referred to me by Dr. Lyon, with the following history: Whenever he threw the switch, which he had to do many times a day, he felt referred pain in the forward part of his chest on the right side. Examination showed marked crepitation, which was transmitted over the entire shoulder blade when the patient shrugged his shoulders forward and upward. This was not obtained on the left side. Operation performed; angle of the scapula removed and the patient placed in a back brace. Patient able to return to his work without symptoms after a few months.

DIFFERENTIAL DIAGNOSIS.

It is true that one or more of the above conditions may occur in the same patient at the same time, but when occurring separately there are usually enough signs and symptoms that will lead to the correct diagnosis. The chief point of differentiation lies between the injury to the subdeltoid bursa and the rupture of the supraspinatus muscle. In the case of the subdeltoid bursitis, Daw-

barn's sign, together, perhaps, with fluctuation and with the ability of the patient to passively but slightly move the arm in all directions, although painful, will be noted; whereas, in rupture of the supraspinatus there is usually atrophy of the deltoid due to disuse, the pain is not as great as in subdeltoid bursitis, but the arm cannot be brought beyond the level of the shoulder voluntarily, but can passively be placed there. If pain occurs in rupture of the supraspinatus muscle, it is usually of a sharp nature due to the impingement of the capsule, whereas in subdeltoid bursitis it occurs when the arm is moved in all directions.

In the differentiation between brachial pressure and deformity of the scapula, one must keep in mind that neuritis may occur as a symptom in both, and that one must distinguish between a true neuritis and neuritis as a symptom. Occasionally, in brachial pressure an absolute diagnosis cannot be made without instituting treatment; that is, removing the pressure, when the pain should shortly disappear. In deformity of the capsule, the crepitation upon forward flexion and elevation of the shoulders is almost pathognomonic, but may not necessarily determine the degree of deformity nor the shortness of the angle of the scapula, especially in adults. Where the stoop shoulders and the condition has persisted for a long time, giving only intermittent symptoms, there is usually a considerable amount of scar tissue formed, which accounts for some of the cases which have had shoulder symptoms at a previous time. The X-ray, in determining the diagnosis, may be of assistance in determining whether or not a general diathesis is present; as, for instance, when subdeltoid bursitis happens to become manifest in an individual who has already had hypertrophic arthritis. In this case the X-ray will show an outline of the bursa nicely, and if two plates are taken, one with the arm down and the other up, the change of position of the bursa will be noted. These types of case may often pass with a diagnosis of rheumatism, but do not yield after a thorough trial of the anti-rheumatic medications.

140 Allen Street.

RELATION OF NERVE CONDUCTIVITY TO DIAMETER. Lapique and Legendre, *Prog. Med.*, December 20, 1913, have found by experiments on the green frog that the average rapidity of conduction of nerve impulses vary directly as the diameter of the nerve fibres—in analogy with the law of electric resistance.

DANGER OF BENZOL. E. Mühlman, *Deutsche Med. Woch.* No. 44, 1913. The author and Neumann have noted hepatic necrosis in one patient each, following the benzol treatment of myelogenic leucocythaemia. Similar results have followed experimental use of the drug in rabbits.

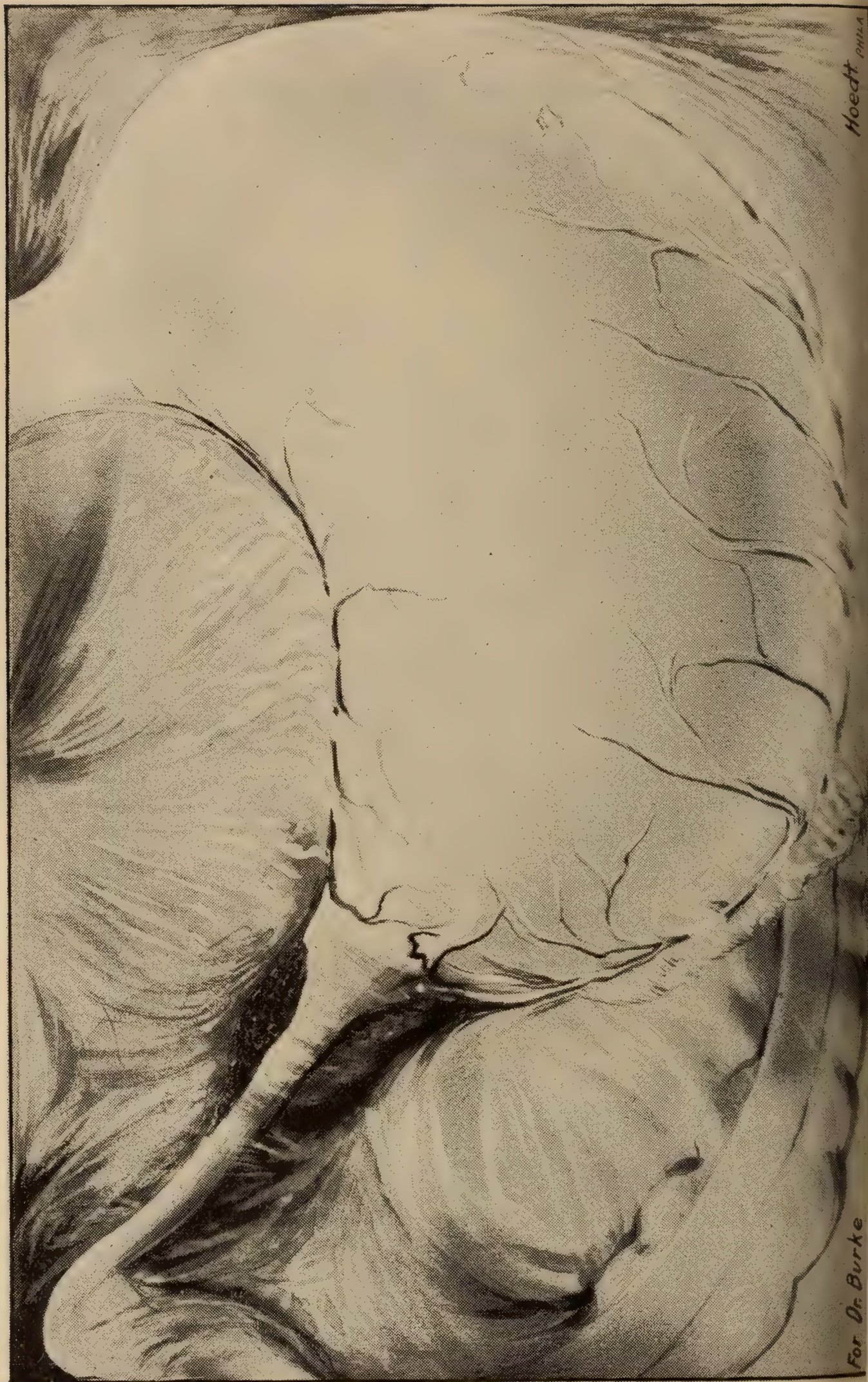
A Contribution to the Pathology of Duodenal Ulcer

BY JOSEPH BURKE, M.D., Sc.D.
Consulting Surgeon, Emergency Hospital
Attending Surgeon, Sisters' Hospital

THE clinical interest in the pathology of chronic duodenal ulcer grows in direct relation to the number of operations upon the upper abdomen. Every case seems to present an individuality all its own. These ulcers are variously situated and by the extent and character of their cicatrization often produce crippling distortions of the bowel. Thus we have annular constrictions in which the whole circumference of the duodenum, in limited extent, is affected; circular ulcers; hour-glass duodenum in which there is double constriction (cases reported by Moynihan, Mayo, Mackenzie and Burke); "kissing" ulcers, so called because they lie on opposite sides of the bowel and when the organ is empty come into contact with each other; diverticula or "pouching ulcers" described by Perry and Shaw. There is also a form of ulcer with consequent stenosis of the duodenum which I encountered in a recent operation, a form of constriction that I have never seen reported and whose rarity serves as an excuse for its detailed description. I shall designate it "tubular" constricting ulcer of the duodenum, best described by referring the reader to Fig. 1.

(Mrs. M., age 46; mother of four children; family history negative. First illness at fourteen years when she suffered from hemorrhage which was diagnosed as from the lungs by one doctor, and from the stomach by another. From this time until three years ago, while always "dyspeptic," never suffered as badly as during the present illness, which began three years ago, when she suffered greatly from attacks of gas and vomiting of a sour liquid, which occurred about 4 P. M. daily and lasted sometimes until midnight. On November 5th, 1913, while shopping, was taken suddenly with pain in right hypochondrium and nausea. Pain like "knife cutting." Two hypodermics were necessary for relief of pain. "Gall stones" was the diagnosis by the attending physician.

Examination made November 22nd, 1913. Female, pale and very thin. Heart and lungs normal. Abdomen concave between ensiform and navel, but convex just below umbilicus. There is visible peristalsis over convexity, waves from left to right. Pain over gall-bladder upon deep palpation, which disappeared during artificial dilation of the stomach. Liver normal in outline. Kidneys not movable. No tenderness over appendix, no rigidity. Artificial inflation of stomach revealed dilated, gastropototic stomach, greater curvature reaching almost to pubes;



Hoedt PHILA

For Dr. Burke

visible gastric peristalsis. Reflexes normal. No oedema of feet. Urine normal; pelvis normal. Blood, secondary anaemia. Diagnosis: pylorospasm; motor insufficiency; pyloric obstruction due to duodenal ulcer; dilation of stomach.



Figure 2

ROENTGEN EXAMINATION

BY

DR. LEONARD REU.

Case No. 2068.

Examination—Dec. 2, 1913.

Gastro-Intestinal Tract.

Referred by

Dr. Joseph Burke,

1092 Main St.,

Buffalo, N. Y.

X-Ray examination shows gastric dilatation, strong peristaltic and anti-peristaltic action. In standing position, the

pylorus is on a level with the upper border of the sacrum. Abnormal duodenum which is of cylindrical shape and which involves the first portion of the duodenum and part of the second. This deformity of the duodenum is not like the usual



Figure 3

deformity seen in duodenal ulcer. Its outline is smooth and symmetrical.

At the end of 4 hours, the stomach contains a large amount of the bismuth meal but still shows gastric motility.

Diagnosis: Stenosis of the Duodenum.

Figs. II and III.

LEONARD REU.

Operation December 3rd, 1913; Sisters' Hospital. Upon opening the abdomen I found the stomach greatly dilated, its walls hypertrophied. The position and size corresponded to the clinical findings. About one-half inch beyond the pyloric vein, the duodenum, for about two and one-half inches appeared as a small tube constricted to about one-fourth its normal diameter, its walls indurated and somewhat rigid, the condition due to ulcer affecting the whole circumference of the bowel for about two and one-half inches. There was a cicatrix just in front of the pyloric veins on the anterior stomach wall, Fig. 1. I performed the usual posterior gastro-enterostomy by suture using a one-inch loop, the stoma being two and one-half inches, its direction from left to right on the stomach. Patient left hospital on the twelfth day after uninterrupted recovery.

1092 Main St.

SOME GENERAL REMARKS ABOUT ABSTRACTS. Credit is given to the original source, with full name and address of author and date of journal, if accessible. We do not try to give specific credit to intermediate sources, even when we use the scissors, and do not expect credit to this Journal, except for original and editorial articles.

Some of the Abstracts are prepared by friends of the editor. We have a very convenient file of exchanges, between a radiator and a medicine cabinet. Unfortunately, when the file reaches two or three feet higher than the radiator, it gets in the way of other things. By hard and rapid work, during an afternoon, we have just managed to get this file down to three feet. Spanish journals are well cared for by Major Quinton. We would like to find a translator for Italian journals, for surplus French and German journals, and for one each in some Scandinavian language, Japanese and Greek. Anyone familiar with classic Greek can read modern Greek, though he could not understand the spoken language nor even read the spoken language if it were reduced to print. This journal is of high grade professionally and the translation would be good practice for some one, with leisure. There are also a good many journals more or less limited to subjects which are outside the editor's line of practice and therefore beyond his critical ability. The editor can very readily fill sufficient space for Abstracts, in the course of a month but it is plain that a great deal of good literature is going to waste and that volunteer work would not only benefit the reviewer but the readers of the *Journal* by introducing different points of view and a wider range of interest.

BUFFALO MEDICAL JOURNAL

A Monthly Review of Medicine and Surgery

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YEARLY VOLUME 69

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No. 7

Segregation

Editorial and original comments on the segregation of prostitutes have, of recent years, been mainly unfavorable. Some indeed have implied that the advocacy of segregation was an indication of immorality. Without going to the extreme of such advocacy, it seems timely to call attention to the fact that the problem of the control of vice still involves many open issues and, among them, the policy of segregation. It has been argued that segregation is a failure because it neither lessens vice nor the risk of general diseases. This charge is unquestionably true. If we consider the matter impartially, it becomes evident that segregation is not at all analogous to quarantine but rather to the commercial tendency to group business houses of the same general nature in approximately limited districts of a city. Segregation will not diminish vice any more than the grouping of department stores will diminish their sales. On the other hand, we cannot see that segregation will have any tendency to increase vice. The lack of analogy to ordinary commercial houses is due partly to the fact that, under ordinary conditions, there will always be certain districts frequented by houses of prostitution and accessible to the public, partly to the fact that the exclusion of such places from other parts of a city will diminish the factors of suggestion and temptation to those not deliberately seeking such places. There are obvious applications of the general law of chance which tend to make the incidence of venereal disease, at some time, almost inevitable in the case of any person, male or female, who indulges promiscuously in sexual intercourse. Segregation will no more make vice safe than the grouping of automobile agencies will remove tendencies to punctures and engine troubles.

Segregation segregates, and that is all that can be expected of it. Is the limitation of houses of ill fame to one district in a city desirable or undesirable? Perhaps this question can be best

answered by putting it in a converse and somewhat personal form. Is it desirable or undesirable that there should be business districts to which decent men and women can go or send their children without the offense, danger and liability to scandal inevitable if the same districts also contain houses of ill fame? Is it desirable or undesirable that a permanent resident of a city may be assured of the respectability of a neighborhood in which he makes his home or invests his money? Is it desirable or undesirable that the transient visitor to a city, or one compelled to board away from home, shall be assured reasonable protection against disreputable associates and neighbors?

There is another reason for advocating segregation. Prostitution, for reasons that need not be discussed here, is attended by a high proportion of liability to suicide, homicide and property damage. Is it desirable or undesirable that the consequent demand for relatively high degrees of police supervision should be limited in area?

The essential objection to segregation is that it implies some degree of license and legal recognition of a nefarious traffic. At first thought, it would appear that the law should neither give its protection nor its cognizance, except in a criminal way, to prostitution. But, without entering into details, it may also be argued that it is sound policy to call a spade a spade and not to follow the reputed folly of the ostrich—of which most naturalists exculpate the bird—of blinding ourselves to the existence of an actual fact. Which of these courses is ultimately better for society should determine public policy, rather than theory as to the dignity of the law and the desirability of maintaining high moral ideas, unless they can be reduced from the abstract to the concrete. In other words, is it better for the law to recognize formally an existing evil and to deal with it as it does with other evils, the liquor traffic, for example, or to follow the present policy of occasional raiding, quasi-supervision, and connivance? We have no hesitation in declaring that one of two policies should be consistently carried out. Either the law should recognize existing facts and license, control and segregate prostitution, at the same time affording the prostitute the same protection and freedom from molestation which it gives to the saloon keeper and to every other citizen, or else it should treat as criminal not only prostitution in the ordinary sense but the social evil in any of its manifestations, without regard to social standing, business interest or sex. There is no justice in punishing a person who engages regularly and as a matter of business in a given pursuit and exempting the occasional and amateur perpetrator of the same social offense. Neither is there justice in persecuting the prostitute and letting her patrons go free, nor reversely, in punishing the male and regarding as an

innocent and injured party the female of an indecent escapade.

We believe that the real social evil of the present is not prostitution but the honeycombing of supposedly decent society with essentially the same vice. If, without hypocrisy and with substantial realization of theory in fact, prostitution can be stamped out, the discussion of segregation, license and every other open question in regard to the social evil, should lead to but one conclusion. If, on the other hand, the refusal to recognize, license and segregate will result—or is resulting—in the scattering of the evil where it cannot be controlled and where, after the analogy of scattering of fomites of infection, it will increase social disease, and ultimately produce a social pyæmia like that which killed the Roman Empire, we should be inclined to stand by the judgment of mankind for the last fifty centuries or so and not by that of a modern school of reformers, and should further be inclined to advocate the adaptation of this judgment to modern legal conceptions of the necessity of regulating everything liable to abuse.

Hints from the Antivivisectionists

It often happens that the same thing is useful in different ways and that the same subject is of interest from entirely different standpoints. It occurs to us that the antivivisectionists have given the medical profession numerous hints which, properly followed up, may develop information of considerable scientific and practical humanitarian value.

1. The claim has been made repeatedly, and recently, that animal experimentation does not yield results of value to medicine, since the conditions in man and the lower animals, indeed in different species throughout the animal kingdom, are too different to warrant deductions from one animal to another. We need no present arguments to show that a large amount of our knowledge of physiology, pathology and even pharmacology does depend upon animal experimentation. But that specific and, a fortiori, generic differences in physiology and drug and disease reactions depending ultimately upon physiology exist, can not be denied. These differences are of the greatest scientific and therapeutic interest and, indeed, in so far as the standardization of drugs by animal reactions is concerned, even of economic importance. While comparative anatomy is a recognized branch of science, comparative physiology exists in a comparatively rudimentary and fragmentary state. One of the points of greatest interest in comparative physiology, is the natural immunity of certain animals against certain diseases, also the extreme variations in susceptibility, manifestation and localization of infection and the almost absolute freedom from spontaneously acquired

disease in a given animal, which is, nevertheless, not immune to infection under artificially produced conditions. There does not seem to be the slightest relation of immunity and susceptibility to zoologic relations, widely different animals showing close analogies in the case of some diseases, though not necessarily to related diseases, and conversely. Without regard to vivisectional ethics, the medical profession should realize its ignorance of comparative physiology and the great promise both of scientific grasp and practical results which a thorough investigation of this subject offers.

2. In the anxiety to refute the arguments of antivivisectionists sweeping claims have been made for the value to humanity of biologic products differing considerably in kind and for which no adequate term has yet been accepted, but all depending in some way upon reactions between disease germ and more or less susceptible animal cells. So far as antivivisection is concerned, these products are not particularly significant except for those who have an unusually high regard for the comfort and dignity of the lower animals since, generally speaking, these preparations do not involve more suffering than the use of animals to yield wool, milk, or, at most, their slaughter for meat and hides. It is unfashionable to speak of these products except with bated breath and in the highest praise, but one who will simply check them off, singly, and abide by actual accumulated experience must, we think, admit that, at present, there is only one among them that shines out with first magnitude, and this is variola vaccine, which has gained greatly in convenience and economy of use, considerably in safety but not much in actual efficiency since the introduction of modern methods. A very few others are of demonstrated value but qualified with a considerable percentage of inefficiency and the great majority are, at present, not developed to a satisfactory degree. Enough promise is given by them to warrant the hope, even the confident expectation that with a reasonable time for perfecting details and establishing standards, these remedies may prove one of the greatest parts of our armamentarium and may even supersede drugs of unquestioned value, not to mention surgical procedures. But we should not be so enthusiastic on the one point of animal experiment to create either a professional or popular confidence in unproved remedies that will prove a disappointment.

3. It occurs to us that it is quite unjustifiable to support a sweeping argument for vivisection by putting the loud pedal upon the class of substances just mentioned. It is quite conceivable that the medical profession may be driven to battle for the right to continue such experimentation, in legislatures and not merely

in the way of combating some phases of popular sentiment. A pretty sharp line may be drawn, from various standpoints, between the use of animals to test and ultimately to prepare these biologic disease reagents, and vivisection in the older and more literally correct sense. If a direct legislative battle ever occurs, the profession cannot hope to satisfy a critical board of inquiry as to the latter by arguments as to the results of serums and antitoxins. And, if restriction of the latter should prove to be imminent, the separation of the question into its components would prove the sincerity of the medical profession and, at the worst, would undoubtedly save the day for a really valuable and highly promising group of diagnostic and therapeutic substances.

4. We need only allude to the word pictures drawn of the torture of animals under curare. It is obvious that we can judge of the correctness of the reiterated statement as to the preferential motor action of this drug, only from records of its action on human beings. We can infer the sensation of pain by an animal only from motor reflexes; we cannot interrogate it afterward. From the analogy of other drugs it is, at least, debatable whether curare does produce paralysis of motion without affecting sensory nerves and centers. And even the identity of curare is not, we believe, definitely established. It is worth while to have definite, impartial knowledge regarding this substance whose physiologic action, at present, is stated largely in terms of antivivisection orators.

5. Without in any way suggesting or justifying serial investigation, we think the profession should consider seriously whether traumatic lesions can ever be systematized so as to furnish either a scientific or a practical relation between vulnerating causes and pathologic results.

6. In an entirely impartial and scientific spirit the inhibition of reflexes by pain should also be seriously studied. So far as any problem of physiology is concerned which has any bearing on our own field of clinical experience and observation, we are quite prepared to admit that any considerable degree of pain would absolutely vitiate any conclusion as to either motor or secretory function. In other words, an experiment without anæsthesia would introduce a degree of shock or of reflex interference such as to render it valueless. As to other branches of medicine, we do not care to venture an opinion.

7. One of the strong "talking points" of antivivisectionists is that animal experimentation is only a precursor to human experimentation. There is no denying that the latter is occasionally practiced. Only last year we cited a report of experimental implantations of gonococci. We hold that such experimentation

is absolutely unjustified, especially if practiced upon patients who do not know or who do not fully realize to what they are being subjected. It is even doubtful whether experimentation with the consent of the patient is justified or whether self-experimentation, usually lauded as martyrdom to science, does not involve essentially the same ethical factors as suicide. But some qualification is necessary. Observation of secretions furnished by volunteers, as medical students, under conditions that involve no danger of life and no serious discomfort are of course to be excepted. So, too, we must except the reasonable application of well grounded hopes of benefit to patients not curable by established means, as well as the introduction into therapeutics of new remedies whose pharmacologic action and safety have been established by purely experimental means.

MISPLACED CHARITY

Recent proceedings against the branch of the Volunteers of America, in Buffalo, have shown a very child-like method of deducting maintenance charges from contributions and incompetence in the management of some philanthropies. It ought to have been self-evident that a class of the population that normally would be self-supporting only by simple forms of labor, cannot lead the life of a clergy educated for religious instruction, travel extensively, and wear very good clothes, without the support from the gifts originally intended for the disabled poor and those temporarily out of work. In view of the large number of persons supporting themselves by "army" work, it is obvious that the economic loss must be considerable. It is a good plan to limit charity to individuals personally known to be deserving and to institutions conducted by a class which is beyond the need of charity and therefore, beyond the temptation, either ignorantly or as a matter of graft, to appropriate from such funds for its own support. And, granting that there are sufficient institutions for the care of the obviously defective members of society, a request for charity usually means drunkenness, laziness or at least an unwillingness to work except at high wages, and shiftlessness. Barring great and repeated misfortunes, the deserving poor who apply for or accept charity, are very few, at least if we consider the family as a unit. Of course, individual dependent members may be deserving, though their needs arise from the fact that the normal bread winner is undeserving.

TOPICS OF PUBLIC INTEREST.

STANDARDIZED DEATH RATE FOR STATES AND CITIES.

AREA.	1912	1911
Registration states	13.5	13.7
California	13.2	12.8
Colorado	12.2	13.6
Connecticut	14.3	14.8
Indiana	12.4	12.3
Kentucky*	13.2	13.4
Maine	12.6	13.0
Maryland*	15.7	15.9
Massachusetts	14.7	15.0
Michigan	12.6	12.4
Minnesota	9.8	10.8
Missouri	12.6	13.1
Montana	11.5	11.6
New Hampshire	13.6	14.2
New Jersey	14.5	15.1
New York	15.2	15.7
Ohio	15.7	12.4
Pennsylvania	14.1	14.4
Rhode Island	15.4	15.7
Utah	10.6	11.0
Vermont	12.2	12.6
Washington	8.7	9.8
Wisconsin	10.8	11.0

CITIES OF 100,000 POPULATION OR OVER IN 1910.

Birmingham, Ala*	20.4	21.3
Los Angeles, Cal	14.6	14.3
Oakland, Cal	12.5	12.5
San Francisco, Cal	16.4	15.9
Denver, Colo	15.1	16.5
Bridgeport, Conn	15.4	15.4
New Haven, Conn	16.8	17.1
Washington, D. C.*	18.5	18.9
Atlanta, Ga.*	20.0	22.0
Chicago, Ill.	16.7	16.4
Indianapolis, Ind.	15.6	15.3
Louisville, Ky.*	17.4	17.0
New Orleans, La.*	21.5	21.8

Baltimore, Md.*	19.1	19.4
Boston, Mass.	17.2	17.9
Cambridge, Mass.	13.1	15.4
Fall River Mass.	17.2	18.4
Lowell, Mass.	18.4	18.8
Worcester, Mass.	16.7	16.2
Detroit, Mich.	17.2	16.0
Grand Rapids, Mich.	13.1	13.7
Minneapolis, Minn.	11.6	12.9
St. Paul, Minn.	12.0	12.9
Kansas City, Mo.	16.7	16.9
St. Louis, Mo.	16.2	16.8
Omaha, Neb.	14.5	15.8
Jersey City, N. J.	15.5	17.6
Newark, N. J.	15.6	16.2
Paterson, N. J.	15.3	15.9
Albany, N. Y.	19.5	19.7
Buffalo, N. York	16.1	15.8
New York, N. Y.	16.4	17.2
Rochester, N. Y.	15.3	15.1
Syracuse, N. Y.	15.8	14.9
Cincinnati, Ohio	16.9	16.9
Cleveland, Ohio	15.2	15.3
Columbus, Ohio	15.3	15.2
Dayton, Ohio	15.4	14.0
Toledo, Ohio	16.6	15.6
Portland, Ore.	11.0	12.6
Philadelphia, Pa.	16.1	17.4
Pittsburgh, Pa.	18.0	16.9
Scranton, Pa.	16.5	16.7
Providence, R. I.	16.4	16.2
Memphis, Tenn.*	23.9	23.4
Nashville, Tenn.*	20.8	22.1
Richmond, Va.*	22.8	23.2
Seattle, Wash.	9.6	10.4
Spokane, Wash.	9.9	13.7
Milwaukee, Wis.	14.6	13.3

* Cities with large proportion of colored population.

TWENTY-NINE COUNTIES PROVIDED (OR ABOUT TO BE) WITH TUBERCULOSIS HOSPITAL. The following table shows the counties of New York State, arranged according to their population, and gives the assessed valuation of each and the average annual number of deaths from tuberculosis.

The 29 counties printed in heavy type either have public tuberculosis hospitals within their borders or have voted, through their boards of supervisors, to establish county tuberculosis hospitals.

Rank in popu- lation	County	Population 1910	Assessed valuation	Average annual No. tuberculosis deaths in last 7 years
1	ERIE	528,985	\$386,204,382.00	602
2	MONROE	283,212	237,223,974.00	317
3	WESTCHESTER	283,055	358,215,745.00	357
4	ONONDAGA	200,298	181,251,726.00	205
5	ALBANY	173,066	134,660,347.00	316
6	ONEIDA	154,157	77,340,478.00	195
7	RENSSELAER	122,276	84,974,673.00	234
8	ORANGE	116,001	51,898,881.00	169
9	Chautauqua	105,126	56,200,931.00	71
10	SUFFOLK	96,138	87,051,236.00	88
11	NIAGARA	92,036	68,981,495.00	82
12	ULSTER	91,769	29,486,275.00	130
13	St. Lawrence	89,005	45,775,940.00	94
14	SCHENECTADY	88,235	62,840,713.00	89
15	DUTCHESS	87,661	59,645,968.00	107
16	Nassau	83,930	97,203,283.00	78
17	STEUBEN	83,363	45,136,921.00	58
18	JEFFERSON	80,382	47,424,484.00	65
19	BROOME	78,000	47,173,355.00	76
20	OSWEGO	71,664	32,575,051.00	65
21	CAYUGA	67,106	41,439,936.00	68
22	CATTARAUGUS	65,919	28,178,830.00	43
23	SARATOGA	61,917	27,584,152.00	75
24	MONTGOMERY	57,567	29,205,221.00	63
25	HERKIMER	56,356	31,103,266.00	54
26	CHEMUNG	54,662	31,305,936.00	56
27	ONTARIO	52,286	35,365,978.00	41
28	Wayne	50,179	27,586,328.00	38
29	CLINTON	48,230	9,794,319.00	53
30	Washington	47,778	20,920,253.00	48
31	Otsego	47,216	24,613,186.00	32
32	Rockland	46,873	31,619,675.00	50
33	Franklin	45,717	12,738,959.00	159
34	Delaware	45,575	15,890,010.00	32
35	FULTON	44,534	16,518,523.00	46
36	Columbia	43,658	27,345,896.00	54
37	Allegany	41,412	19,127,101.00	19
38	Madison	39,289	21,325,848.00	29
39	Livingston	38,037	28,375,199.00	33
40	Genesee	37,615	26,751,482.00	27
41	CHENANGO	35,575	16,720,005.00	27
42	Sullivan	33,808	7,142,055.00	159
43	TOMPKINS	33,647	20,612,808.00	28
44	Essex	33,458	12,744,085.00	46
45	WARREN	32,223	11,252,330.00	35

46	Orleans	32,000	19,015,329.00	33
47	Wyoming	31,880	17,530,849.00	19
48	Greene	30,214	12,947,633.00	50
49	Cortland	29,249	17,086,013.00	19
50	Seneca	26,972	16,613,416.00	25
51	Tioga	25,624	14,248,180.00	19
52	Lewis	24,849	10,812,384.00	17
53	Schoharie	23,855	11,477,535.00	22
54	Yates	18,642	11,526,407.00	14
55	Putnam	14,665	14,173,376.00	17
56	Schuyler	14,004	6,797,222.00	10
57	Hamilton	4,373	4,879,042.00	4

—S. C. C. A. News, December, 1913.

CURE OF GONORRHOEA BY HEAT. J. A. Fulton of Astoria, Wash., *Northwest Med.*, December, 1913, refers to his initial report in the *Med. Rec.*, February 12, 1912 and to the report by Majors L. W. Harrison and C. J. Stoughton, in the *Jour. Royal Army Med. Corps*, February, 1913 which we abstracted some months ago. Naturally, Fulton claims priority which we are glad to accord, subject to possible conflicting claims. He uses a temperature of 110–120 F., for 20–30 minutes, by means of a catheter with inlet and outlet tubes and a thermometer in each. One or two treatments of acute cases usually produce negative bacteriologic findings.

The following bill is proposed to be introduced into the New York Legislature of 1914, by the Society for the Prevention of Abuse in Animal Experimentation, 204 Montague Street, Brooklyn, N. Y.

An act to create a commission to investigate and report upon the condition of the practice of human and animal experimentation in the State of New York, to show what regulations are necessary to prevent cruelty to human beings or animals; and likewise to prevent any abuse of or interference with the private rights of human beings in our charitable institutions and elsewhere, by experimentation upon them without authority and consent.

The people of the State of New York represented in Senate and Assembly, do enact as follows:

SECTION I. The Governor is hereby empowered and directed to appoint a commission which shall consist of five (5) members, two (2) of whom shall be physicians or persons experienced in the practice of vivisection and residing within this state, two (2) of whom shall be active members of some organization within this state having for its purposes the prevention of cruelty but who shall not be physicians, and the remaining one (1) member of which commission shall be a lawyer residing within this state.

SEC. II. Such commission shall fully investigate and report upon:

(a) The present condition and extent of the practice of experimentation upon human beings without their consent; especially upon children and other patients in hospitals, public institutions or elsewhere within this state by inoculation or by any other form of treatment or tests not undertaken for the direct benefit of the individuals experimented upon and not having relation to their individual necessities. It shall also report what further laws are necessary to protect such persons from any injury or any interference with their personal rights by such practice or by the abuse thereof.

(b) It shall investigate and report upon the condition and extent of the practice of experimentation on living animals in the state and upon the amount of avoidable cruelty or suffering involved therein; and shall also make a full inquiry into the condition of the law of this state for the protection, regulation and license of scientific investigation or research of this character by competent experts. It shall also consider the condition and effectiveness of the law for the prevention of abuse in such practice. It shall inquire what further legislation, may be needed to prevent unnecessary suffering of animals through such practice or through its abuse and, also, properly to license and limit legitimate scientific experimentation to experts of approved competency.

SEC. III. For the purpose of this investigation the said commission is hereby authorized and empowered to subpoena witnesses; to send for persons or papers to administer oaths and to examine witnesses and papers respecting all matters pertaining to this subject. It shall be authorized to employ necessary clerical or other assistants. For this purpose the sum of five thousand dollars or so much thereof as is necessary is hereby appropriated.

This commission shall serve without compensation, and shall make a full and final report to the Governor, including such recommendations for legislation as in its judgment seem proper within one year after its appointment.

SEC. IV. This act shall take effect immediately.

THE AMERICAN COLLEGE OF SURGEONS has been submitted to so much criticism that we take pleasure in reviewing the circular sent by the Secretary, Dr. Franklin H. Martin of Chicago, from which we are authorized to extract. The impression that the college might interfere with vested rights to practice medicine in its entirety seem to have been based on the call to the organization meeting in Washington, in May 1913:

"First. It should formulate a minimum standard of requirements which should be possessed by any authorized graduate in

medicine who is allowed to perform, independently, surgical operations in general surgery or any of its specialties.

"Second. It should consider the desirability of listing the names of those who desire to practice surgery and who come under the authorized requirements.

"Third. It should seek the means of legalizing under national, colonial, state, or provincial laws, a distinct degree supplementing the medical degree which shall be conferred upon physicians possessing the requirements recognized by this law as necessary to be possessed by operating surgeons.

"Fourth. It should seek co-operation with the medical schools of the continent which have the right to confer the degree of M. D. under the present recognized standards, and urge these colleges to confer a supplementary degree on those of its graduates who have, in addition to their medical course, fulfilled the necessary apprenticeship in surgical hospitals, operative laboratories, and actual operative surgery.

"Fifth. It should authorize and popularize the use of this title by men upon whom it is conferred, and its use should especially be urged in all directories of physicians in order that the laity as well as medical men may distinguish between the men who have been authorized to practice surgery and those who have not."

As formally recorded in the by-laws, it will be observed that criticism on this score is not justified unless it shall develop that the College, while maintaining the high standard appropriate to a select society endeavors to control the license to practice surgery or to exploit the privilege of membership to an undue degree.

II. OBJECT. The object of the College shall be to elevate the standard of surgery, to establish a standard of competency and of character for practitioners of surgery, to provide a method of granting fellowships in the organization, and to educate the public and the profession to understand that the practice of surgery calls for special training, and that the surgeon elected to fellowship in this College has had such training and is properly qualified to practice surgery.

We find nothing either in the circular of information nor in the way of designations after the published list of members to justify the impression—which, however, was warranted by the preliminary announcements—that members are to be arranged in classes of distinction. Over 2000 applications mostly voluntary, were received up to November, 1913, of which number 1057 were recommended for membership and many more probably will be favorably passed upon. Convocations for the admission of fellows will be held in some eastern city on Monday

evening of the week of the A. M. A. meeting (June) and at some place to be designated later, in November. At a rough estimate, there are about 5000 surgeons, in the usual special sense, in the United States. While the College follows a broad policy in admitting members from various specialties which are more or less surgical, it seems reasonable to suppose that the great majority of its fellows will be surgeons in the ordinary sense of the word and that other specialists will not seek membership in any sense as a pre-requisite to practice and, so far as can be judged from scanning the list of fellows already elected, the great majority are strictly surgeons. It is obvious that, at the inception of so large a movement, special pains must be taken in the selection and, on the other hand, that a great many men would, on account of conservatism, delay their applications. The mere fact that approximately a fifth of the total surgical strength of the country has already been enrolled, indicates both a strong professional sentiment in favor of such an organization and a disposition to deal fairly with the surgeons of the country.

We believe that neither the medical press nor individuals should anticipate the actual development of this organization. Before criticising, let us wait and see whether its policy is to require special eminence for admission or whether all bona fide surgeons, in good professional standing, are to be admitted. Either policy is perfectly proper and supported by precedent, but each, obviously, must influence the future policy of the organization. After the College has definitely embarked on one of these two courses, further criticism should be deferred until it has been shown by experience that the former policy is being used to the disadvantage of the general body of surgeons or that the latter is being used to interfere with the legal rights of practitioners as a whole.

In accepting and publishing the address of its President, Dr. J. M. T. Finney, the College has put itself plainly on record as opposed to graft, favoritism or mercenary motives, the establishment of a surgical trust or the control of politics. While the question of the necessity of such an institution allows a difference of opinion and while there may be honest differences of opinion as to details, in its subsequent management, the hostile criticisms that have been expressed imply a diffusion of insincerity that is not only inconceivably base but suicidal. We ask, therefore, not only a fair, judicial attitude but a cordial welcome to this new institution.

SCARLET FEVER GERM. On investigation of the report that Dr. Terry of Detroit had identified a specific germ for this disease, we are informed that the press notices are premature and

that while Dr. Terry has made some valuable observations, he is not making any such claim at present.

WASSERMAN TEST. Beginning with 1914, the Health Department of Buffalo will make this test free of charge for physicians, on any local case. Special outfits and a detailed circular of information have been prepared. Samples of blood should be sent in Monday of each week, Tuesday being devoted to making the tests.

GRAIN TRADE OF BUFFALO. Mr. Junius S. Smith, Lake Weighmaster of the Corn Exchange of Buffalo (the word corn being used in the original English sense) reports that over 192 million bushels of grain were received at Buffalo in 1913, carried by 998 lake boats. Over a third came from Canada. Nearly 17 million bushels were held in cargo, January 1. The grain carriage by lake has been reduced to such a system that the discrepancy between the weight as delivered to and extracted from the boats is only about one part in 10,000, about one tenth what it was when Mr. Smith undertook the work in 1872.

HOSPITAL RATES IN LOCKPORT. An attempt has been made to reduce the charges for ward service to non-residents from \$12 to \$8 a week, on account of the prevalence of the lower rate in Buffalo. The Common Council, late in December, refused to reduce the rate.

THE BROAD ST. HOSPITAL OF ONEIDA, opened March 1, 1907 with 25 beds and enlarged in 1911 to about 30 beds, will be further enlarged to a capacity of 60 patients, work to be begun about March 1.

OPENING FOR PHYSICIAN. The Hospital Board of St. Louis is looking for a medical man of wide experience, as medical officer at the workhouse. He is expected to devote all his time to the work, sleep with the prisoners and eat with the guards. The salary is \$100 per month. An examination to have been held November 29, has been postponed as no applications were received. Comment is withheld, on account of post office regulations.

The Court of Appeals of Louisville has awarded the father of a child \$250 damages against the Cumberland Telephone and Telegraph Company for failing to reach a physician, the child dying of diphtheria. Probably a case of "Excuse it, please, I

will call you later." By the way, did anyone ever receive that call later?

THE AUTOMOBILE LICENSE LAW has been declared unconstitutional in Ohio on the ground of class legislation and licenses and number plates are being withheld pending decision of the Supreme Court. We believe few will object to the payment of the tax, anywhere, if the proceeds are used legitimately for road improvement. Except brick roads, most state roads with which we are familiar are tire destroyers.

THE SAME PROBLEM IN ETHICS. In our January issue, we alluded to a scathing criticism of noted surgeons for what seemed to us merely the enterprise of a passenger agent of a railroad but the matter served as a text for discussing whether the publicity of well known men might not influence the ethical conduct of less fortunate practitioners. Last year we noted the action of a Baltimore society condemning news notices of operations or other hospital treatment, in which the names of attendants were published and we called attention to the injustice of enforcing the theoretically correct principle involved, to its literal extreme. Now, formal inquiry has been addressed to a celebrated surgeon on account of publicity in connection with radium. So far as radium is concerned, we can see no reason for the somewhat spectacular items which have appeared in newspapers. Except for the gradual accumulation of experience, in both a positive and a negative direction, and certain interesting studies along the lines of radio-activity generally and the possibility of transmutation of what have been regarded as elements, there has been no conspicuous advance in the last six years. No epoch-making discovery has been made to justify newspaper publicity and, if anything, the general experience should lead rather to a hopeful conservatism and guarded use of radio-activity than to a disuse of accepted surgical measures against malignant diseases. Even if the contrary were true, the ethical status of the problem would remain the same. To facilitate discussion, the following somewhat dogmatic and conflicting statements may be made: 1. The ethical conduct of the great man should not differ essentially from that of the mediocre man, in any profession. 2. Progress should not be obstructed by ethics. 3. Proper, spontaneous interest in a man, due to genuine merit or unavoidable publicity, should not be considered to detract from his ethical standing. We do not know of any way to harmonize the apparent inconsistency except by a general recourse to sincerity and unselfishness.

COCAINE. In the October issue, we published a full report on the New York State Law, feeling confident that this one article would be worth in dollars and cents, all that our subscribers pay for the Journal in a year. Failure to heed our warning has, up to date resulted as follows: one year in the penitentiary for one physician, one other and a druggist held for grand jury—for Buffalo alone. We do not, however, claim this result as proof of the value of the article as the evidence showed that the loss of time and expense were not due to any technical violation of the law. The law is drastic, based on stern necessity to control a great evil. Its requirements are troublesome and not entirely such as would occur to conscientious men. We, therefore urge careful reference to the article to avoid technical infractions.

AMBULANCE SERVICE. The Buffalo General Hospital reports, for the last fiscal year, 1526 trips, averaging 34 minutes each. A general average of over 4 trips a day was maintained, the highest number for any one day being 12, representing 6 hours work.

THE HYDROPHOBIA GERM has been discovered by Noguchi and classed as a protozoon. Barring contradictory findings by others, this should put an end to the dispute as to whether hydrophobia is a specific disease, on which question, we have always preserved a judicial attitude. We believe, however, that it must be conceded that purely clinical diagnosis of rabies must have included cases of tetanus and of hysteria major.

RAPE. The five-year-old daughter of a North Carolina physician was recently assaulted by a negro who was spirited away to jail, to prevent a lynching.

EFFICIENCY OF ANTI-TYPHOID VACCINATION. But two cases of typhoid occurred in the army in 1913, as compared with an average of about 250 before vaccination was practiced. In the navy, in which compulsory vaccination was not at first practiced, seven cases occurred in a total strength of 50,000, four of these being at a remote tropical station where the vaccine had probably deteriorated. While sanitation and education must be given credit, it is inconceivable that such striking results could have been obtained without a genuine protective power on the part of the vaccination.

THE VALUE OF EDUCATION—A NEGATIVE PROOF. At few places has the uselessness of vaccination against variola and

the right of the individual to resist compulsory laws, been so thoroughly and influentially taught by a medical authority as at Niagara Falls. At few places has there been, relatively to the population, so much opportunity for importation of the germ and at few has the population so general an economic interest in freedom from small pox, or any other disease which would lead to quarantine or voluntary restriction of travel to a given point. Post hoc, if not proter hoc, Niagara Falls now has an epidemic of over 200 cases and is enjoying a quarantine and nearby towns are also suffering. So far as we can learn, not a single case has developed in a person theoretically immunized, according to accepted standards. We hope to publish a complete report of the epidemic when it is practically at an end and meantime, emphasize the opportunity for testing the conclusions of Fornet of Berlin abstracted at some length in our issue of December 1913. Anti-vaccinationists are supposed to be opposed to human experimentation. Here, we have human experimentation carried on on a comparatively large scale. We trust that the health authorities will make a full investigation, with accurate statistics as to the incidence of and escape from variola, in the vaccinated and the unvaccinated, with such opportunities for argument from the antis that this experiment may never need to be tried again.

INCOME TAX CORRECTION. The statements in the editorial on this subject in the January issue, regarding estimate of income from homes owned by the occupant, should be corrected in accordance with recent rulings. Neither value as rental nor expenses except for taxes, are to be counted in calculating net incomes. This ruling is wholesome, as it prevents a good deal of confusion and it places a small premium on home-owning, which is a good thing for the community.

RADIUM MISSING. 35 milligrams of radium, worth \$4500, is reported missing from Chicago since the holidays. The warning is published in the daily papers that, unless the radium is properly protected, it may kill the thief.

BROOME COUNTY TUBERCULOSIS HOSPITAL. The supervisors have voted to buy the Mountain Sanitarium property of the Binghamton City Hospital and to conduct it, beginning January 1, 1914, as a county hospital for tuberculosis. The site contains 30 acres and is valued at \$10,000.

Dr. George E. Smith of Fredonia has received a verdict of no cause of action in a suit brought against him for malpractice.

THE FLOWER HOSPITAL, 450 E. 64, N. Y., opened a new pavilion for private patients, January 17. The rates vary from \$2 for ward beds to \$25 for suite of two rooms with bath, by the day.

ERIE COUNTY PHYSICIANS. County Commissioner William Hunt has appointed Dr. Frederick M. Boyle, County Physician at a salary of \$3000; Drs. George B. Stocker and Bruce L. B. Cook, Deputy Physicians at salaries of \$2500.

DENTAL DISPENSARIES FOR BUFFALO. Health Commissioner Fronczak's efforts in this direction for the last couple of years have been crowned with success.

This is a list of new positions and increases in the present force approved yesterday by the committee:

Ten school nurses at \$720 a year.

Two dental inspectors at \$500 each.

Two dentists at \$1,000 each.

Two assistant dentists at \$400 each.

One examiner in psycho-physiological division, \$1,000.

Two diagnosticians at \$2,000 each.

Two clerks at \$900 each.

Three inspectors of food and drugs at \$1,000 each.

One clerk and stenographer at \$1,000.

One permit and filing clerk at \$900.

One Italian speaking tenement and lodging-house inspector at \$1,000.

Considerable opposition was made to the project of establishing dental dispensaries and one of the daily papers heads its report "Creates Lot of New Jobs." With all consideration for the rights of tax payers and conservatism in regard to paternal methods, there is a real need for dispensaries along all medical lines but they should be carefully supervised to prevent their use by persons able to pay for treatment.

DEATHS IN PROFESSIONAL OFFICES. Recently, two such cases have occurred in western New York, both of women, one following a hypodermatic injection of peptonate of iron by a regular practitioner, the other during an abortion apparently caused by gossypium, in the office of a mechano-therapist. In the former case, blame was placed at the inquest on the physician for having used a method not thoroughly established. (Note: The Editor has a vial of tablets of citrate of iron prepared for this purpose some years ago but never used, as it was concluded that there was no special indication for administering iron in this way and some apprehension of results existed. However,

one who has come so near the same method can sympathize with the unfortunate one who carried it out.) In the latter case, up to the date of writing, no evidence has appeared to incriminate the mechano-therapist in any way and he is held on the nominal charge of practicing medicine without a license which charge, we believe, can scarcely be upheld under the existing law.

GIRLS PREFERRED FOR ADOPTION. The State Charities Aid Association, 105 E. 22, N. Y., reports that of 4,754 applications for children from orphan asylums in 15 years, 3,011 specified girls, 190 were indifferent and 30 would take both a girl and a boy. This can scarcely be considered to represent a prejudice against male offspring, as persons willing to adopt orphans are usually lacking in keen family pride and wish children mainly for domestic association, in which girls would naturally be preferred. The report gives the following interesting statistics:

Legally adopted	628
Returned to relatives of good character who had become able to care for them.....	44
Returned to agencies or institutions from which the chil- dren were received.....	43
Died	49
Became of age and self-supporting.....	51
Transferred to and placed through other societies and insti- tutions	10
Placed in institutions for special treatment.....	25
Married	6
Remaining under the oversight of the S. C. A. A.....	928
Total	1,784

CHARGES have been brought against the Superintendent of the Gowanda State Hospital, of drunkenness and neglect of duty. The provisional defense is that the charges are due to desire for vengeance by an employe discharged for cause and the latter seems to have been desirous of withdrawing his charges but they are being pushed by others.

FEES FOR REPORTING COMMUNICABLE DISEASES. The State Health Commissioner has ruled that Dunkirk physicians are still entitled to receive a fee of 25 cents, in spite of recent changes in the law. We understand that this ruling is applicable to other places.

The Ontario County Laboratory has recently been much enlarged. The addition includes a consulting room, pathology room, autopsy or experimental room, animal room and the

necessary storage and toilet space. This is the first county laboratory to be established in the United States and it is gratifying to know that the work has demanded an addition. The equipment is adequate for all modern diagnostic work and for research on a small scale.

TYPHOID EPIDEMIC. Centralia, Wash., population 10,000, developed 300 cases in three weeks, last month, 16 dead at time of report. The water supply was from driven wells but with an emergency supply from a creek, and hence infection from the water shed. A very interesting case of human experimentation well illustrating the antivivisectionist argument that a cruel experiment should not be repeated to support a fact already well established.

NEW YORK STATE MORTALITY 1913, 14.9:1000, against 14.8 for 1912, and, with this exception, the lowest on record.

OUR CONTEMPORARIES

The *Medical Economist* of December, 1913, contains a rather caustic article by Maxwell L. Volk of New York, on hospital appointments, interne and staff. It would seem that a common sense code on this matter would be about as follows: A private hospital has a right of choice based on private preferences; a hospital supported by any particular race, denomination or organization, has a right to select accordingly; a public hospital, including one supported by local governments and by public charity, is a public trust and we dislike to think that anyone sufficiently prominent to be on its staff would be actuated by favoritism.

Burton J. Hendrick, in the January *McClure's* presents an interesting discussion of the new medical ethics. He thinks that the difficult problem of privileged communications should be decided according to the results on potential victims, rather than by the obligation of the physician to an individual patient. We question whether the candor which he advocates in telling patients of incurable conditions ought always to be practiced. He has rather magnified the importance which the profession applies to mere etiquette, although most etiquette is based on common sense. The prevalence of fee splitting is greatly exaggerated.

The editorial in the *Jour. of the A. M. A.*, January 10, on deaths of physicians, deserves careful reading. Especially deplorable are the considerable number of deaths by suicide and homicide.

The *Medical Council* of January refers to abstracts in medical journals as the "medical silo." But ensilage is pretty good fodder.

The *International Hospital Record*, December 17, 1913, calls attention editorially to the advisability of giving medical students experience in nursing in hospital wards.

The Running Expenses of a City Doctor.

In view of the Income Tax it seems apropos to make a rough estimate of the running expenses of an average city doctor. Such an estimate as we are going to make refers especially to cities in the South where the great majority of doctors have an office establishment which is separate and distinct from the home. The automobile expenses we consider a *sine qua non* in any city of 75,000 inhabitants or more, except in the very large cities like Chicago, New York, Buffalo and others where the transportation facilities are such that nearly any home can be reached by some of the numerous methods of public transport.

Automobile upkeep	\$300 00
Telephone	60 00
Office girl	144 00
Office rent	240 00
County and State Society, including journal	7 00
American Medical Ass'n, including journal	5 00
One good journal	5 00
Physician's Liability Insurance	20 00
Books	30 00
Medicines and Reagents for office.....	10 00
Dressings and new instruments.....	25 00

\$846.00

—*Nashville Medical Journal.*

PERSONALS

Announcement of removal, travel, and other matters of interest are requested. Please report errors in the listing of any physician in the State and other directories that we may co-operate with the State Society in securing a correct list.

Dr. C. A. Vander Beek of Rochester has moved from 44 Gibbs street to 408 Park avenue.

Dr. Edward W. Roos of Corning visited his former home in Buffalo during the holidays.

Dr. Eva G. Fowler of Buffalo is spending several months in Philadelphia, studying diseases of the eye at the Polyclinic.

Dr. John F. Crowley of Batavia has been appointed Physician for the Town Poor at a salary of \$450. (Note: Why not pay the City Physicians of Buffalo salaries commensurate with their work and graded to the same level as other employees?)

Dr. M. S. Coxe has been appointed Health Officer of Dunkirk.

Dr. C. Pearley Lape has removed his residence and office to 979 Lafayette avenue. He is devoting special attention to Anæsthesia and Roentgenography.

Dr. Arthur H. Brown gave a dinner to the medical men of Auburn and Cayuga counties on December 23 in commemoration of his thirty years' practice in this city. A loving cup was presented to Dr. Brown by the members present, the presentation speech being made by Dr. J. D. Tripp of Auburn. Dr. O'Neill acted as toastmaster and speeches were made by Drs. W. H. Coe, M. P. Conway, J. P. Creveliry, J. D. Tripp, T. F. Laurie and Dr. A. H. Brown. The dinner was attended by about seventy-five physicians.

OBITUARIES.

Readers are requested to report promptly the death of all physicians in Western New York, or former residents of this region, or graduates of any medical school in Western New York and to notify the families of the deceased of our desire to publish adequate obituary notices.

Dr. S. Weir Mitchell of Philadelphia died at his home, January 4, 1914. He was born in Philadelphia February 15, 1829, was educated in the local schools and at the University of Pennsylvania and graduated in medicine at Jefferson in 1850. He served as a surgeon of volunteers from 1862 till the close of the Civil War, paying special attention to the nervous results of military traumatisms. Five institutions conferred upon him the degree of LL. D., and he held many positions of honor in the medical profession. It is, in a sense, unfortunate that his popular and general professional reputation as a medical man, depended mainly on his rest cure for neurasthenia and hysteria, since, this, however ingenious and practical, was necessarily only a system involving details of medical art. Having heard his masterly demonstrations at the time when Victor Horsley's experiments as to cerebral localizations were new, we can personally attest his higher claim as a medical scientist and critical clinician in his chosen field of neurology.

Dr. Mitchell is the only instance that occurs to us of a man who gained and maintained distinction both as a medical practitioner and as an author in general literature. Many physicians, like himself, have contributed valuable articles to popular literature, dealing with subjects suggested by professional experience. Many others, especially before the modern development of medical science as an engrossing occupation, united medical with other scientific and philosophic authorship; several literary men of distinction, such as Oliver Wendell Holmes and A. Conan Doyle, have passed from creditable medical practice into authorship along other lines; quite a number of men well known as medical practitioners and students have put forth literary works in limited number, of interest but, so far as we recall, no one else has thus combined medicine and literature, especially in the field of fiction, has kept up an active interest in each, and has won high esteem in each according to accepted standards of criticism in each independently of the other. If this statement is an error, we will welcome correction.

Like many other men of high attainment, Dr. Mitchell, although somewhat handicapped physically in his youth, maintained both physical and intellectual vigor to an advanced age. "Westways," published only a few months ago suggests the age of the author only by the maturity of view and by inference from the obvious personal familiarity with the times. This novel, covering the period from about 1850 to 1865, avoids the typic local color of political centers, Southern plantations, Northern hotbeds of abolition and draws very little upon the easily attractive novelist's stock in trade of the battle field. As in most of his other writings, Dr. Mitchell deals mainly with the American aristocracy—to use a convenient term in spite of inviting criticism—but, in spite of this, he avoids the suspicion of snob-bishness and does not alienate the sympathies of the reader. Among his numerous and well known stories, we commend especially to medical readers, the "Autobiography of a Quack" as a more valuable lesson in ethics than the code. One remarkable fact about Dr. Mitchell's authorship is that, in the frequent allusions to medical matters, he almost never applies directly his own medical knowledge. As an author, his viewpoint is that of the intelligent laity, of the time and his references to medicine, in his fiction, are developed as literary material and not as clinical or pathologic. Perhaps this is why he attained distinction in a double way, being able to concentrate as a medical man on professional problems and being distinctively a literary writer so far as his fiction is concerned.

Dr. Miles D. Goodyear, Michigan 1868, died November 25, 1913, at his home in Groton, aged 67.

Dr. Jacob Walter Eleeza Karr Davis, Buffalo 1887, a practitioner of Omaha for 26 years, died December 4, suddenly, in a street car, of heart disease, aged 64.

Dr. A. F. Sheldon, N. Y. University 1852, died at his home in Lyons, January 4, aged 84. He served in the Civil War as surgeon to the 7th N. Y. Cavalry, 78th N. Y. Infantry, and as an executive officer on Gen. Wadsworth's staff in the Medical Director's Office at Washington. He was breveted Lt. Col. by President Johnson. He was well known as a practitioner of Wayne County, and had held many positions of honor in public and military capacities.

Dr. James Granger, (not listed in State Directory) died at his home in Mayville, December 21, 1913, aged 72.

Dr. Henry Flood, Bellevue, 1874, died at his home in Elmira, December 30, 1913, aged 60. Born at Lodi, he had been a resident of Elmira since childhood and was educated at the Elmira Free Academy, graduating in 1871. He began the study of medicine in the office of his father, the late Patrick H. Flood. In addition to his regular medical course, he studied in Vienna in 1878-9 and at the P. & S. (now Columbia) of New York, in 1889-90. Beside being prominent as a physician, he was mayor of Elmira in 1884-5 and was postmaster in 1889. He was one of the founders of the Elmira City Club. He had been sick for several months and had been confined to his room for six weeks, fully realizing and resigned to the fatal nature of his disability. Beside his widow and one son, Mr. Henry Flood of Poughkeepsie, he is survived by two nieces in the profession, Dr. Regina Flood Keyes of Buffalo and Dr. Mabel Flood, who had been associated with her uncle.

Brigadier General George Henry Torney, M. D., University of Virginia 1870, Surgeon General, U. S. A., died in Washington, December 27, 1913, aged 63. The cause of death was broncho-pneumonia.

Dr. James Dorr Clyde, P. & S. (now Columbia) 1867, died at his home in Cherry Valley, N. Y., December 4, 1913, aged 70. He was a veteran of the Civil War.

Dr. Edward Charles Spitzka, University of New York 1873, died at his home in Manhattan, January 13, 1914, of apoplexy, aged 61. He had suffered for some time from necrosis of the jaw. He was well known as a neurologist, and had been editor of



DR. EDWARD CHARLES SPITZKA

Courtesy of New York Medical Journal.

the *American Journal of Neurology* and President of the American Neurologic Association and of the New York Neurologic Society.

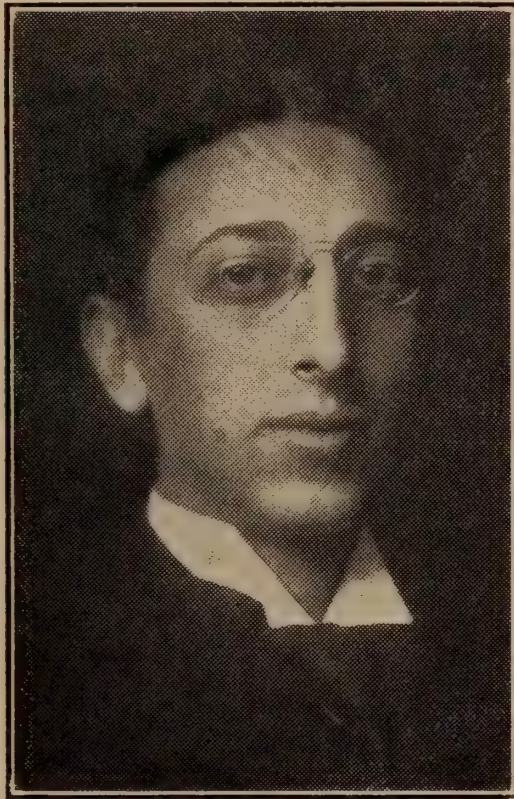
Frederick Carl Busch

1873-1914—AN APPRECIATION

When the grim destroyer on January 3, 1914 swept Frederick Carl Busch into eternity, the profession lost a master-mind and medicine a faithful servant. Dr. Busch died at the age of forty, from a malignant growth in the bladder, for the treatment of which he went to Baltimore early in November, 1913, where he was unsuccessfully exposed to a massive dose of radium.

Frederick Carl Busch was born in Buffalo December 12, 1873, of a prominent Erie County German-American family, his father being Frederick Busch, now deceased, and his mother Katherine Layer; he leaves one brother, George, and one sister, Mrs. James Trounce, both of Buffalo. On June 22, 1898 he married Edith M. Fletcher of Middleport, New York, who with their son, Addison Fletcher, aged seven, survives him.

In his early years Dr. Busch attended No. 16 school in Buffalo, graduating from the Central High in 1890. He received



DR. FREDERICK CARL BUSCH

Courtesy of Buffalo Express

the degree of Bachelor of Science from Cornell University in 1895, and that of Doctor of Medicine from the University of Buffalo in 1897. After serving as house physician, he became an alumnus of the Buffalo General Hospital in 1898; he studied under Professor Kronecker during the year 1900 at the University of Bern, Switzerland. Again in 1912-1913 he studied in the clinics at Hamburg, Berlin, Paris and London. In 1901 he accepted the Chair of Physiology in the Medical Department of the University of Buffalo, and became a member of the executive faculty in 1910. In 1912 Dr. Busch resigned his official connection with the medical school to accept the position of physician in the Buffalo Hospital of the New York State Insti-

tute for the Study of Malignant Diseases, in which were spent, as a patient, the last days of his life.

The diversity of Dr. Busch's interest is well exemplified by his connection with many medical, scientific, historical and social associations. He was a Fellow of the American Medical Association, a member of the medical societies of New York State and of the County of Erie, of the American Physiological Society, of the American Society for the Encouragement of Clinical Research, of the Buffalo Academy of Medicine, of the Roswell Park Medical Club, and of the Buffalo Medical Club; he was a Fellow of the American Association for the Advancement of Science, a member of the Buffalo Society of Natural Sciences, of the Buffalo Historical Society, of the University Club, of the Westminster Club and of the Guido Chorus; he also kept up an active interest in the Nu Sigma Nu, the Beta Theta Pi and the Sigma Xi fraternities.

The brilliant career of Frederick Carl Busch is a shining example to young men in medicine of what untiring industry properly directed will accomplish in but a few years. His research work was known and favorably commented upon not only at home but also in foreign countries, so that he had won an international reputation before reaching the age of forty. In time to come he will probably be best remembered by his revolutionary work on hemorrhage in which his investigations in blood transfusions and serum injections brought out the superior advantages of dried serums; in association with Dr. G. H. A. Clowes the preparation of this product was perfected and given to the profession in 1911 under the name of coagulose. His studies in the transplantation of healthy adrenal glands into the tissues of sufferers from Addison's disease, while not so startling is better known. Dr. Busch was above all an investigator never discouraged by failure, but always governed by a true scientific spirit.

It is as a teacher that the younger medical men knew Dr. Busch best; they not only felt the influence of his fluent, clear and incisive exposition of the complexities of physiology, but they received an inspiration for better work, closer observation and deeper thought. His cheerful optimism, his geniality and his freedom from egotistic dignity made him the personal friend of every student, while his habit of pressing home the point by a humorous twist accompanied by that winning smile endeared him to all.

Notwithstanding the pressure of his other work, Dr. Busch found time to revise several medical works in his chosen field. His laboratory manual of physiology, a valuable addition to the

text books on the subject, is very popular and has a wide use. He wrote freely and discriminatingly for the medical journals and for presentation at medical meetings, his articles always had the merit of adding something to the sum of medical knowledge.

Among his many qualifications, Dr. Busch was an accomplished linguist, a pleasing raconteur, a jolly good fellow; he was widely popular in the best sense and deservedly so notwithstanding his modesty and his domestic tendencies. Those who knew him most intimately loved him loyally, for in him was no selfishness, no deceit, no dubious ways, but always generosity, honesty, frankness and heartfelt sympathy.

The general public knew Dr. Busch best as a singer. Thousands have been charmed by his splendid voice, one of rare sweetness. He came of a music-loving family, and had he chosen music as a career, with his superb baritone he would have been equally successful as an artist. He was prodigal with this wonderful talent giving of it freely wherever it might please and entertain; he seemed to feel that it was given to him only that he might use it for the enjoyment of others.

Small wonder is it then that one gives pause to note the passage out of this life of one so richly endowed and cultivated, of one so modest and unassuming, of one so universally loved as a companion, respected as a teacher and honored as a fellow-man.

SOCIETY MEETINGS.

Brief reports and announcements of meetings of societies of Western New York and those of general scope are requested from Secretaries. Copy should be on hand the fifteenth of each month. Full transactions will be published at cost of composition.

BUFFALO ACADEMY OF MEDICINE: Pathology, December 23, 1913, "Beri-Beri," Maj. F. H. Wadhams, M. D., of Fort Porter, Buffalo; Surgery, January 6, "Good Lighting and How to Obtain It," M. Luckiesh of the Physical Laboratory, National Electric Lamp Association, Cleveland; Stated Meeting under auspices of Section of Medicine, January 13, Lantern Slide Illustrations of Aphasia, Dr. August Hoch, Director of Pathologic Institute of State Hospitals, New York; Obstetrics and Gynaecology, January 20, "Syphilis as a Complication of Pregnancy," Wm. T. Getman, M. D., discussion by Nelson W. Wilson, M. D.; "Vaginal Caesarian Section in Eclampsia," Irving W. Potter, M. D., discussion by Matthew D. Mann, M. D., all of Buffalo except as specified.

ELMIRA ACADEMY OF MEDICINE, January 7, 1914, Prof. James M. Caird of Troy spoke on "Water Filtration, Ancient and Modern," illustrated by 100 lantern slides.

ROCHESTER ACADEMY OF MEDICINE, Nominations: For President, William B. Jones, M. D., Charles R. Barber, M. D., Charles Dean Young, M. D.; For Four Vice-Presidents, Willard H. Veeder, M. D., George G. Carroll, M. D., James K. Quigley, M. D., John M. Swan, M. D.; For Treasurer, Wesley T. Mulligan, M. D.; For Three Trustees, John F. W. Whitbeck, M. D., Nathan W. Soble, M. D., Montgomery E. Leary, M. D.; For Two Councillors, William V. Ewers, M. D., Myron B. Palmer, M. D., J. W. Magill, M. D., For Two Members of Library Committee, John M. Swan, M. D., Joseph Roby, M. D., Charles W. Hennington, M. D. Address of Retiring President, Dr. Charles E. Darrow, President; Dr. Edward L. Hanes, Secretary.

At its first quarterly meeting, January 6, 1914, at Salamanca, N. Y., the CATTARAUGUS COUNTY MEDICAL SOCIETY has elected the following officers: President, Dr. H. W. Johnson, Gowanda; Vice-President, Dr. R. B. Morris, Olean; Secretary-Treasurer, Dr. H. H. Ashley, Machias; Delegate to State Society, Dr. H. W. Johnson, Gowanda; Alternate, Dr. E. Torrey, Olean; Delegate 8th District Branch, Dr. F. C. Beals, Salamanca; Alternate, Dr. M. C. Hawley, Randolph; Censors, Dr. S. S. Bredient, Little Valley; Dr. A. D. Lake, Gowanda; Dr. E. Torrey, Olean; Dr. M. E. Fisher, Delevan; Dr. F. C. Beals, Salamanca.

THE BUFFALO MEDICAL AND SURGICAL LEAGUE had its January meeting at the Lutheran Church Home. Dr. Alfred Noehren, the attending physician, gave a clinic on senile diseases.

ONTARIO COUNTY MEDICAL SOCIETY met in Canandaigua January 13th. The President's Address: "Tuberculosis of the Peritoneum" by Dr. S. R. Wheeler, East Bloomfield. "Differential Temperature in Otology," Dr. George F. Cott, Buffalo. "Influenzal Pneumonia," Dr. H. J. Q. Howe, Phelps.

CANANDAIGUA SOCIETY OF PHYSICIANS AND SURGEONS met on January 8th, at the Canandaigua Hotel. The President's Address: "Present Status of Vaccine Therapy" by Dr. A. W. Armstrong. Officers elected: Dr. H. C. Buell, President; Dr. A. L. Beahan, Vice-President; Dr. H. C. Burgess, Secretary-Treasurer. Dr. A. M. Mead of Victor was the host.

CORRESPONDENCE.

This department is intended for the presentation of news and views not coming within the scope of other departments, and particularly to afford opportunity for discussion and criticism of views elsewhere expressed.

Niagara Falls, N. Y., Dec. 30, 1913.

Editor, Buffalo Medical Journal,
Buffalo, N. Y.

Dear Sir—Regarding the attack on the Dowd Phosphatometer, A. M. A., December 20th, 1913, it is evident on the face of it that those of us who have used the Phosphatometer and observed the great variations in the amount of phosphates present in different conditions of illness and the almost immediate results obtained following treatment as directed by its readings that instead of “the thinking men believing it an unscientific absurdity,” as they term it, they are the ones that should be deprived at once of their license to think.

I shall agree with them that it may as yet not be on a highly scientific basis, for I think there is still much to learn regarding the Phosphatic Index, but as one Doctor expressed himself some time ago in a medical article, speaking of things that as yet may be considered empirical, “We cannot abstain from or discard a useful method until the precise explanation is revealed to us and we cannot forget that empiricism has often anticipated science in Medicine.” This may be made more clear if I say, that for the past 400 years all persons infected with syphilis should have been allowed to suffer or die because we did not thoroughly understand the action of mercury on the disease.

Regarding a quantitative analysis, how about sugar, albumin, etc. Must we wait for a 24-hour specimen of urine from each patient before prescribing? A diabetic might pass into coma from which he would never return while waiting for the 24-hour specimen. Possibly only a part of the phosphates may pass out through the urine, the same may be said of albumin, sugar, etc. Must we stop examining for these substances? The rise and fall of the phosphates under appropriate medication, as suggested by the phosphatometer, will be evidenced to any one at once upon using this instrument and instead of it being “an unscientific humbug” they are the ones that should be so classed. I can only substantiate Dowd’s opinion regarding the Co. Phos. Tonic, it does just what he says it does.

Niagara Falls, N. Y.

ROBT. J. TALBOT.

BOOK REVIEWS.

Books mentioned may be inspected at and ordered through this office. So far as possible, books received in any month will be reviewed in the issue of the second month following.

Publishers will please mark the price of each book on the front fly leaf.

ESSENTIALS OF NERVOUS DISEASES AND INSANITY. John C. Shaw, M. D. Late Clinical Professor of Diseases of the Mind and Nervous System, Long Island College Hospital Medical School. Fifth revised edition by Louis Casamajor, M. A. M. D., New York. 187 pages, illustrated.

ESSENTIALS OF GYNAECOLOGY. Edwin B. Cragin, M. D., Professor of Obstetrics and Gynaecology, College of Physicians and Surgeons, New York. Eighth revised edition by Frank S. Matthews, M. D., New York, 240 pages, illustrated.

ESSENTIALS OF BACTERIOLOGY. M. V. Ball, M. D., Warren, Pa., assisted by Paul G. Weston, M. D., Warren, Pa. Seventh revised edition, 321 pages, 118 illustrations.

All of the above are published by the W. B. Saunders Co. of Philadelphia and London, at \$1.00 per volume, being part of the blue covered series of Saunders' Question Compends. The number of revisions attests both the popularity of the works and the fact that the series is being kept fully in accordance with modern discoveries. It is unnecessary to emphasize the necessity of compends of this nature for students not to state that the stock criticism of quiz work, in class or by text books, should be directed toward general methods of medical education and not toward means that have developed in accordance with such methods. But it may not be out of place to call attention to the great value of properly prepared books of this sort, to refresh the memory of the practicing physician and to enable him to place in their proper places, the details which he is constantly absorbing from periodic literature. The text books of this series are well adapted to both these functions. Many of our readers will feel personal interest in the last named book, since Dr. Ball was for some time in practice in Buffalo and an officer of one of the societies that has become a section of the Buffalo Academy of Medicine.

THE NARCOTIC DRUG DISEASES AND ALLIED AILMENTS. George E. Pettey, M. D., Memphis. Published by the F. A. Davis Co., Philadelphia. 516 pages.

Interesting points in this work are the tolerance for drugs established, the dosage of antagonistic drugs required (e. g., $\frac{1}{4}$ grain of strychnine, repeated up to a grain in a day in morphine cases) the sceptic views as to specific formulæ, the broadness of scope necessary in successful treatment, including diet, baths, cathartics, psychic suggestion, etc. The writer has not attempted to solve any of the problems of narcotic addiction in an easy manner nor has he attempted to be original at the expense of ignoring the valuable results of accumulated experience. He has, therefore, consulted the ultimate welfare of the patient and of his attendant, not the convenience of the reviewer nor of the man who is looking for some easy and brief way out of difficulties. It is a painstaking book for a painstaking reader.

TRANSACTIONS OF THE AMERICAN SURGICAL ASSOCIATION. Volume 31, for 1913, printed under the editorship of Dr. Archibald MacLaren, Recorder, St. Paul, Minn., by Wm. J. Doran, Philadelphia. 622 pages, illustrated.

The book contains lists of officers and members, of members deceased during the year and a report of the committee on fractures, beside the monographs presented by members at the meeting in Washington, May 1913. It would be invidious to select a few of these for review, impossible to do justice to all. We can only say, therefore, that the papers are of the highest order and that both the editor and the printer have discharged their duties well.

CUNNINGHAM'S TEXT BOOK OF ANATOMY, 4th edition, enlarged and re-written, edited by Arthur Robinson, M. D., F. R. C. S. of Edinburgh. 1596 pages, 1124 illustrations, 637 in colors, and 2 plates. William Wood & Co., New York, \$6.50 cloth, \$7.50 half morocco.

Owing to the death of Drs. Cunningham, Birmingham and Young, a new editorship and the selection of new authors for various sections, have been necessary. The detailed credit is given in the preface. While anatomy appears on superficial consideration, to be a fixed branch of medical science, marked advances have been made in our understanding of embryology, of the ductless glands and of many other structures, at least in detail. Thus it can no longer represent the investigation or even

the collation of any one man, nor can it be satisfactorily presented by a mere reprinting of former editions nor even by supplementing the text with illustrations of higher technic. The Basle anatomic terminology has been used throughout except in a few instances in which terms have been shown to be incorrect under older interpretations. Every effort has been made, not only to incorporate the most exact and most modern researches as to structure but to facilitate the work of the student by clear literary style and by illustrations which reduce eye strain to a minimum. Thus the work is, at once, a monumental treatise, and a practical compend.

TEXT BOOK OF HISTOLOGY by Frederick R. Bailey, A. M., M. D., 4th revised edition, published by William Wood & Co., New York, 644 pages, 384 illustrations, \$3.50.

The first 38 pages deal with histologic technic, a short section on the cell follows and then longer sections on the tissues and the organs. The text is lucidly written and the cuts distinct while the fact that the book has passed through three previous editions, attests its popularity and genuine merit.

THE PRACTITIONER'S PRACTICAL PRESCRIBER and Epitome of Symptomatic Treatment, D. M. MacDonald, M. D., Medical Officer of Health, Leven, Fife. Oxford University Press, American Branch, 35 W. 32, N. Y. 198 pages, \$1.50.

About two-thirds of this little book is arranged alphabetically, by diseases, with brief indications for treatment, the prescriptions being, of course, in the apothecary's system and alluding to the B. P. The remainder of the book consists of posologic tables, discussion of incompatibility, etc., diet tables, list of diseases treated by X-ray, a form for post mortem examination reports and other miscellany.

PRACTICAL PRESCRIBING WITH CLINICAL NOTES. Arthur H. Pritchard, M. R. C. S., L. R. C. N., R. N., retired. Oxford University Press, American Branch, 35 W. 32, N. Y. 307 pages, \$2.

The diseases covered are grouped as constitutional, infective and of various organs. The clinical method, with description of case, prescription sheet and discussion of treatment and symptoms is mainly followed. Interesting notes of experience with certain drugs and methods of treatment, are interpolated.

In many parts of the book, the two-column arrangement of prescription sheet on one side and course of the disease on the other is employed. The arrangement of the work seems unique and valuable as affording the reader the benefit of actual experience with cases, not in the ordinary American form of clinics, which except for history and notes of progress limit the view to a single hour, but as if one were following the author through his hospital service day by day.

THE ELEMENTS OF BANDAGING AND THE TREATMENT OF FRACTURES AND DISLOCATIONS. Wm. Rankin, M. A., M. B., Ch. B., Glasgow; published by the Oxford University Press, American Branch, 35 W. 32, New York; 116 pages, 68 illustrations; \$1.50.

This is a brief treatise, divided into parts as indicated in the title, but 16 pages being given to Dislocations. The part on Fractures is headed with an Armamentarium of appliances necessary. The general principles of the subject are well presented and the technicalities of particular fractures, etc., are discussed much more completely than the size of the book leads one to expect.

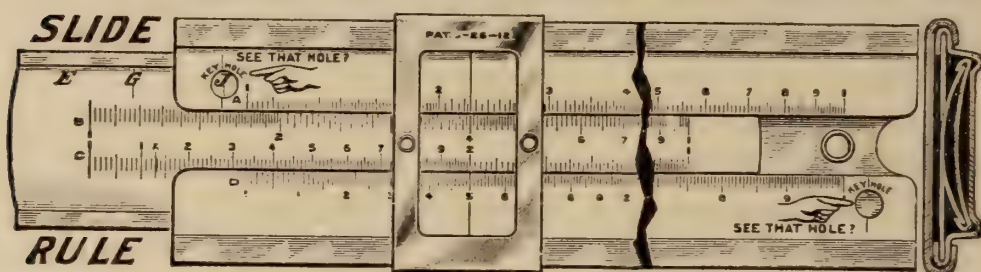
POISONS AND HABIT FORMING DRUGS. Martin I. Wilbert and Murray Galt Motter, Technical Assistants, Hygienic Laboratory; Bulletin No. 146, U. S. Public Health Service.

This is a digest of laws and regulations relating to the possession, use, sale and manufacture of poisons and habit forming drugs, enacted during 1912 and 1913 and now in force in the U. S.

E. MERCK'S ANNUAL REPORT OF RECENT ADVANCES IN PHARMACEUTICAL CHEMISTRY AND THERAPEUTICS. Vol. 26, 1912; published by E. Merck, Darmstadt.

This should not be mistaken for an ordinary price list or advertisement. It is an elaborate collation of highly scientific work along various lines. The first 71 pages are devoted to lecithin, the bibliography occupying 20 pages. About 400 pages are then given to an alphabetic consideration of new drugs and of new methods and uses of old drugs. The indexes and supplement occupy about 70 pages. The work is in English. The Report will be sent on receipt of 15 cents to pay carrying charges.

THE SLIDE RULE SIMPLIFIED, by George W. Richardson, Consulting Engineer and Manufacturer of Slide Rules, 4214 24th Place, Chicago. The book, of 52 pages, paper covers, \$1.00; flexible silk binding, \$0.50; the rule, \$2.50, in card board case; leather case, \$0.50.



Aside from professional engineers, most men forget the advantages and practical uses of higher mathematics and very few have even heard of the slide rule. The general principle of this instrument is that by the comparison of sliding scales, divided by lines, various problems involving multiplication, division, raising to powers and extracting roots, determination of sines, cosines, logarithms, etc., may be solved approximately, with considerable rapidity. Most such instruments are expensive and complicated. The present instrument is quite inexpensive and comparatively simple, though it is proper to warn the one unfamiliar with it, that no slide rule can be made that is as simple as a calendar or a chart for diagnosing bacteria. Some of the uses to which the physician may put this rule are as follows: calculation of simple and compound interest, (which will save considerable sums in checking the off-hand statements as to the value of life insurance as an investment) conversion of metric into apothecary units and vice versa, calculations involving titration and molecular weights, estimation of food values, calculation of gasoline in horizontal cylindric tanks, the depth of gasoline being the co-versed sine of the arc filled, electric calculations of various kinds. Very little has been done as to the mathematics of physiology and other medical sciences and we trust that some mathematician will make a special study of medical quantitation. We have been impressed with the marked practicability of dosage of alkalies, based on titrations of acid secretions and excretions, notably stomach contents and urine and while it is unlikely that quantitation can ever be absolutely accurate for problems involving a vital factor, it is altogether probable that they are susceptible of much greater accuracy than is usually believed.

PROGRESSIVE MEDICINE, edited by H. A. Hare and L. F. Appleman; published by Lea & Febiger, Philadelphia and New York; quarterly; \$6 per annum.

The present volume deals with the current literature on the Digestive Organs, Kidneys, Peritoneum, Genito-urinary Organs, Surgery of the Extremities, Shock, Anaesthesia, Infections, etc., and concludes with a Practical Therapeutic Referendum. The contributors are Joseph C. Bloodgood, Charles W. Bonney, John R. Bradford, Edward H. Goodman and H. R. M. Landis. Owing to the wide range of subjects covered and the fact that the work is, in itself, a review, we select no special subjects for mention but endorse in the highest terms the quality of the work as a whole.

PRACTICE OF MEDICINE. James Tyson, M. D., LL. D., and M. Howard Fussell, M. D., of Philadelphia. P. Blakiston's Son & Co., Philadelphia; 1211 pages, 6 plates and 179 other illustrations.

An earlier edition of this work has been on our shelves for years, and on the whole, we have come to regard it as the easiest for reference, the one most likely to furnish definite information as to the habitat, semelincidence or the reverse of disease, problems sub judice, etc., and in short the one best adapted for "brushing up" on half forgotten points. While it may be that we are prejudiced by the natural and proper regard for a favorite teacher, we are inclined to believe that the practicability of Dr. Tyson's work has been due to three factors: his long experience as a teacher of pathology at a period when specialization in this branch did not exclude attention to practice; the fact that his teaching of the practice of medicine was mainly as a clinical and not a didactic professor; his official service as Dean and kindly disposition, which brought him more into contact with medical students and young medical practitioners than the average teacher of medicine, and thus enabling him to comprehend to the fullest, the methods most successful in imparting technical knowledge. The fact that the work has reached its sixth edition is ample proof of its value. Dr. Tyson has fully realized and cordially conceded the advantages of bringing to the task of revision, the services of younger blood, as well as of securing expert assistance in certain chapters.

SURGERY OF THE UPPER ABDOMEN. John B. Deaver, M. D., Sc. D., LL. D., and Astley Paston Cooper Ashhurst, A. B., M. D., Vol. 2, Surgery of the Gall Bladder, Liver, Pancreas and Spleen; 499 pages, 52 illustrations, including colored plates, \$5; published by P. Blakiston's Sons & Co.

At the risk of continuing too far, the personal reminiscences suggested by the previous review, we may say that we enjoyed the clinical teaching in surgery of Dr. Deaver as well as of the late John Ashhurst Jr. No experiment has more amply justified a departure from precedent than the appointment of Dr. Deaver to the faculty of the University of Pennsylvania, although, at the time, the custom had been to select the faculty from a very limited area in municipal geography.

This book would appeal favorably to the reviewer if it came from a previously unknown source. It is more than a surgery and is of value to the medical practitioner, perhaps to a greater degree than to the surgeon. The latter, trained in technic, having the case in hand essentially for operation, and compelled to follow emergent indications and to meet mechanic factors with personal ingenuity, may feel that he needs this guide less than an increase of personal experience although both in anticipation and in retrospect, it will afford him wise counsel. But, under existing conditions, the responsibility for visceral surgery and especially of this region, rests largely on the internist. He it is who needs most to know what conditions are likely to be present, in a more definite sense than can be determined by external and physiologic methods, and what can be expected from surgical intervention. The authors, while dwelling sufficiently on surgical detail, and justly deriving support from their previously acquired authority, have refrained from limiting themselves to operative technic and to personal experience, much less to generalities. Elaborate tables are presented, as to the bacteriology of series of cases, exact location of calculi, results of different methods of treatment and numerous other points on which the medical practitioner must weigh the indications for surgery; and each section is followed by a bibliography. Thus, practically every moot point is decided by actual evidence.

DIAGNOSTIC WALL CHART—SPUTUM. Published by the Palisade Mfg. Co., Yonkers, N. Y. Typic microscopic fields are displayed in a circle. By pointing a movable arrow at any one, a description of the field is uncovered by a disc attached to the arrow. Any physician interested will receive a chart on application to the company.

We have noticed an unfavorable comment in one of our contemporaries, which takes the ground that the fields depicted

will not correspond to actual findings and that an attempt to make diagnoses will lead to error. In the literal sense, there is probably some truth in this but the same criticism applies to illustrations in the most approved text books. Typic findings are rare. If actual microscopic appearances are reproduced, they cannot apply exactly to other cases and they confuse the mental picture more than if theoretic types are employed. In order that the mental picture be clear, it is necessary not only to separate into its components the very mixed picture obtainable in the great majority of cases but to accentuate somewhat, the features that must be noted by the eye. Probably no one would have less expectation of suggesting this chart for the guidance of expert pathologists than the publishers who would, equally probably, be the last to imagine that the non-expert would pose as an expert microscopic diagnostician, simply on the basis of the possession of the chart. But, they have presented in convenient form, a resume of the principal structural findings to be looked for in the sputum. It gives a good general conception of the subject to the man who does not expect to use the microscope for fine diagnostic purposes and it will clarify the mental picture and refresh the memory of the man who uses such methods with average skill but who makes no pretensions to expertness.

PRINCIPLES OF MICROBIOLOGY, A Treatise on Bacteria, Fungi and Protozoa Pathogenic for Domesticated Animals. Veranus Alva Moore, B. S., M. D., V. M. D., Ithaca; published by Carpenter & Co., Ithaca; 506 pages, 101 illustrations; \$3.50.

Great attention is paid to general technic, methods of classification, preparation of media, use of animal inoculation, etc., which occupy about a third of the book. An ingenious designation of bacteria modeled after the decimal system of library cataloguing is suggested, extending from hundreds to six decimal places, each figure having a special significance, hundreds applying to spores, tens to aerobic and anaerobic growth, units to action on gelatin, tenths to action on dextrose, etc. The botanic classification of bacteria as if bacillus, streptococcus, etc., indicate a genus is, of course, purely tentative. The allusions to filterable viruses, especially the observations that certain of these are not filterable through perfect filters, are interesting. The detailed description of bacteria and other microorganisms are exact and lucid and, dealing with the domesticated animals, present many points with which the medical profession is unfamiliar, which throw light on general principles of microbiology and

suggest that a broader view of the science might discover general laws where we now depend upon scattered observations.

Without regard to the particular subject taught, the author shows didactic skill of the highest order and it is in order to acknowledge the value of contributions from veterinary medicine to general medical science. The publishers have also done their part well.

TRANSACTIONS OF THE AMERICAN GASTRO-ENTEROLOGICAL ASSOCIATION. Sixteenth Annual Session, Washington, May 5 and 6, 1913. Fifteen monographs are contained in this volume, covering various phases of the subject, there being a commendable tendency to consider outlying and unsolved problems rather than those making up the majority of practice of the members.

THE ADVERTISER'S HANDY GUIDE, 1913, Compiled and published by the Morse International Agency, 449 Fourth Ave, N. Y.; 810 pages; \$2.00.

This contains lists of newspapers by states and provinces, of medical, religious, agricultural and other publications by classes, with statistics of circulation, etc. We are, naturally especially interested in the medical list and note the shrinkage of one of our contemporaries from 7,000 to less than 1,600, also, the remarkably large circulation of some essentially local publications in areas of sparse population. There is a surprising lack of relation between journalistic excellence or even a meeting of a popular demand, and circulation. Generally speaking, the organization journals, have a large proportionate circulation, being sent to every member, whereas, owing to subscription sharing, independent journals cover, on the average about two physicians to a copy. We have made a substantial gain in circulation since furnishing statistics. The Morse Agency are to be complimented on having prepared a neat and convenient guide for those interested in publicity.

MORSE'S CASE HISTORIES IN PAEDIATRICS, published by W. M. Leonard, Boston, revised in January issue, page 377. The price was stated as \$3.00. It should have been \$5.50.

GENITO-URINARY DISEASES AND SYPHILIS—By Edgar G. Bal-
lenger, M. D., Adjunct Clinical Professor of Genito-Urinary
Diseases, Atlanta Medical College; Editor Journal-Record of
Medicine; Urologist to Westley Memorial Hospital; Genito-
Urinary Surgeon to Davis-Fisher Sanatorium; Urologist to
Hospital for Nervous Diseases, etc., Atlanta, Ga., assisted by
Omar F. Elder, M. D. *The Wassermann Reaction* by Edgar
Paullin, M. D. Second edition revised; 527 pages with 109
illustrations and 5 colored plates; price \$5.00 net; E. W. Allen
& Co., Atlanta, Ga.

The author speaks somewhat guardedly of the specificity of the Ducrey-Unna streptobacillus. The explanation and qualifi-
cation of Colle's law is well put, though we think that one not
already familiar with it, would not quite understand the state-
ment that Profeta's law is the converse of Colles's. The Wasser-
mann reaction and various modifications are discussed at length
and with proper qualifications though a plus plus reaction is
considered practically pathognomonic. Plus minus reactions may
occur in normal individuals. Extra-genital and non-venereal
lesions are well discussed although for gonorrhoea, the general
statement of their rarity is all that we find. The book is thor-
oughly practical and complete without being replete with un-
necessary details.

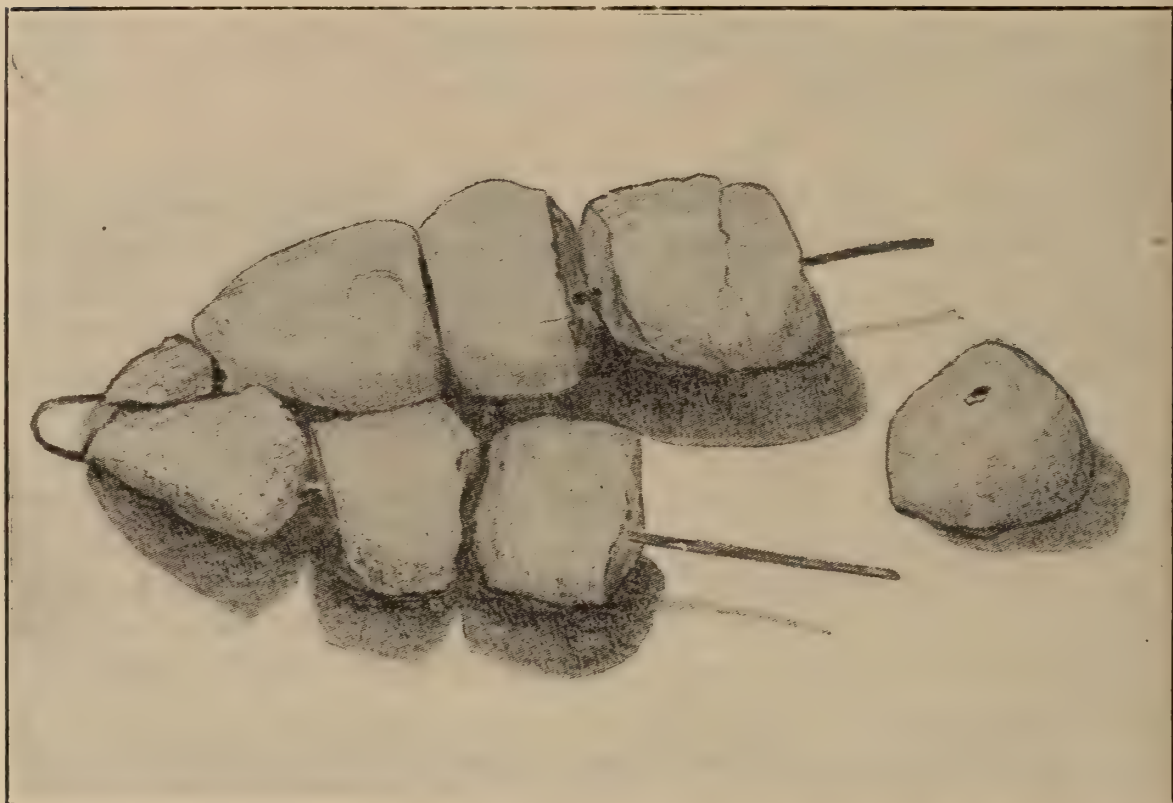
We express our appreciation of the blank review slip en-
closed, bearing the usual statements at the top and leaving space
below for review, even an extra sheet being folded over for the
carbon copy. We trust that other publishers will follow this con-
venient method.

ABSTRACTS

EXTRAORDINARY CASE OF CALCULI FORMED ON A FOREIGN
BODY. Dr. G. W. Maly reports the following interesting case
(*Zeit. für. Gyn., Urol. Amer. Jour. Urology*, June, 1913.) The
patient was a girl of 22, who during the past year had been com-
plaining of pains in the abdomen and constantly increasing urinary
difficulties. On examination the hymen was found intact. Right
behind the symphysis in the anterior vaginal wall one could feel
a hard nodular resistance. The catheter at once encountered a
hard body. The urine was turbid, ammoniacal. Cystoscopically
one could plainly see at once a hairpin with seven stones strung
out regularly over both prongs. The size of the stones was that
of hazel nuts and they had well formed facets. An eighth stone,
which had separated from the hairpin, was lying nearby. The

fine lumen of the stone, showing that it was also formed on the hairpin, can still be seen. Suprapubic cystotomy was performed, recovery was uneventful, and after 14 days the patient was discharged well.

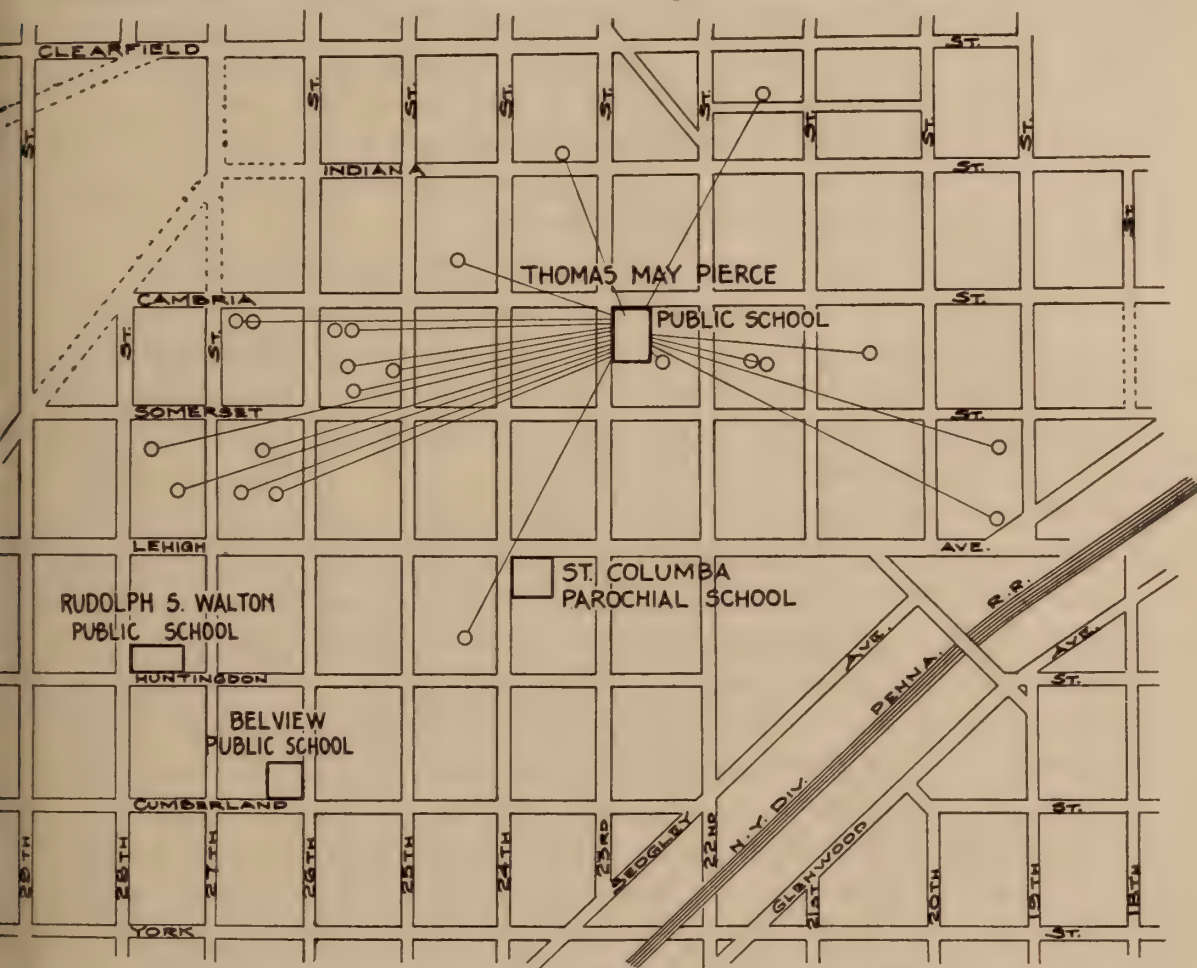
The illustration reproduces the stones in their arrangement and their natural size. The surface of the stones is yellowish



red, somewhat rough but smooth at the facets. The stones were not fixed on the pin but could be turned and moved. The hairpin was introduced for purposes of masturbation. We acknowledge the courtesy of the *Critic and Guide* in furnishing the cut.

INFANTILE DIABETES. *Johns Hopkins Hosp. Bull.*, September, 1913. J. H. M. Knox has collected from the literature fifteen cases of diabetes in infants under a year. In three the disease was noted within a few days of birth. In three a grandparent or great-aunt had had diabetes. In six the disease seemed to have followed an injury to the central nervous system—in two a fall. In two an injury at birth was possible, as the labors were described as difficult. Three cases were associated with hydrocephalus and one with anencephalus. In three cases the symptoms began after the use of an unusual amount of sugar. One baby was fed on condensed milk; another was given 150 grams of sugar in addition to a litre of milk daily, and in the case reported about a litre of milk was given containing 10 per cent. malt soup. At least three cases ended in coma. Recovery took place in three. Thus the prognosis is grave, but not hopeless, except in a severe grade of the disease.

ROLE OF THE SCHOOL IN SPREAD OF SCARLET FEVER. Walter W. Roach, *Am. Jour. Pub. Health*, Vol. 2, No. 6, describes, with map loaned by courtesy of the Editor, an epidemic occurring in Philadelphia, January-March, 1913. On inspection of the schools in March, seven desquamating cases were found.



OBLITERATIONS OF THE SUPERIOR VENA CAVA. Hebrard, *Gazette des Hôpitaux*, August 2, 1913. Obliteration of the superior vena cava has only recently been studied, the first reliable observations being made by Oulmont in 1856. This writer differentiated obstructions due to concretions within the vein from those due to external compression, and assigned a very gloomy prognosis to the conditions. Lately the part played by chronic inflammatory conditions of the mediastinum in bringing about obstruction has been demonstrated, and the outlook in certain cases is now known to be less serious than was formerly thought to be the case.

Impermeability of the superior vena cava may be due to malignant masses in the vein itself, to the thrombosis produced as a result of such masses, or to thrombosis indirectly produced in such cases by the consequent phlebitis. More commonly, however, the obstruction is due to external compression; compression due to the increased size of a neighboring organ, as in the case of

an aortic aneurysm, tuberculosis of the tracheo-bronchial glands, malignant disease of an enlarged thyroid gland, to malignant disease of the mediastinum, or of the lung, and finally to chronic mediastinitis. Aneurysm of the aorta and chronic mediastinitis are the two most important causes to remember, in that the former is the most common, and it is among the latter group that the curable forms of obliteration are found. Chronic mediastinitis may be due to syphilis, tuberculosis, mediastinal pleurisy, mediastino-pericarditic inflammation, repeated infections of the respiratory tract, and rarely to acute rheumatism. Most important to realize that syphilis is a frequent factor in the production of mediastinitis that tends to compress the superior vena cava, a mediastinitis that may be cured by appropriate treatment.

From the point of view of morbid anatomy it is difficult to differentiate malignant disease of the vein itself from malignant disease of the adjacent organs which are generally affected at the time of the autopsy. Compression of the vein by an aortic aneurysm may or may not be complete.

As a rule the first effect of the aneurysm on the vein is to set up an adhesive inflammation between the opposing walls of the latter; if the compression goes no further, blood may still pass through the vein, between the interstices of these adhesions. In other cases where the compression has been severe, the trunk of the vein is found flattened upon the aneurysmal sac and its lumen completely obliterated.

Both fusiform and saccular aneurysms are capable of producing these consequences; in rare cases the vein has been invaginated by a small hemispherical dilatation of the aorta situated immediately above its origin from the heart. In some cases the vein has been found compressed between a dilatation of the aorta and an enlarged suppurating mediastinal gland.

Mediastinitis of syphilitic origin most commonly affects the antero-superior part of the mediastinum, and so readily compresses the vein. In certain types of this condition all the tissues of the mediastinum ultimately become matted together and constricted by the fibrosis that results, the fibrous tissue in such cases being exceptionally tough and creaking beneath the scalpel. The superior vena cava in such a case is found completely surrounded by the fibrous tissue; its lumen is diminished, and occupied by an organized clot. This clot may extend into the veins of the neck and upper extremities.

According to Renault the superior vena cava is one of the sites of election of tertiary syphilis. Tuberculous mediastinitis generally effects the lower parts of the mediastinum, but may in some cases compress the superior vena cava. The condition is usually found along with tuberculous tracheo-bronchial glands. Cases in

which the vein is compressed as a result of a tuberculo-syphilitic mediastinitis are occasionally met with in infants who have inherited syphilis. The mediastinitis of acute rheumatism is almost always associated with pericarditis and endocarditis. It should be remembered that syphilis, tuberculosis, and malignant disease, in addition to their direct effects on the vein, may also cause compression by enlarging the tracheo-bronchial glands.

The intra-thoracic tumors that tend to compress the superior vena cava are in the great majority of cases malignant, but cases have been recorded in which the pressure was due to benign growths, fibromata, lipomata, hydatid cysts, and dermoid cysts. A retrosternal prolongation of an enlarged thyroid gland has been known to produce the same result.

The results of compression of the superior vena cava are three: œdema of the upper part of the body, face, arms, chest and abdomen as far as the umbilicus: cyanosis of the face: and dilated veins over the upper part of the body. The author devotes some time to the discussion of the collateral circulation in these cases; he divides it into the cavo-caval system and the cavo-portal. The former consists of anastomoses between the internal and external mammary veins on the one hand, and the superficial abdominal veins on the other; of communications between the superior and inferior diaphragmatic veins; and between the azygos and intercostal veins and the posterior extracostal veins.

The porto-caval system consists of communications between the upper diaphragmatic vein and that of the suspensory ligament of the liver; the internal mammary and intercostal veins with the para-umbilical veins; the œsophageal veins with those of the cardia; and the azygos vein with the splenic through the intervention of the azygosplenic vein of Smieden.—Translated by Donald Core, for *Med. Chron.*

FUNCTIONAL TESTS OF THE KIDNEY IN UREMIA. N. B. Foster, New York, *Arch. Internal Med.*, October 15, 1913, calls attention to certain limitations of laboratory aids, and to exceptions which many cases present to what is perhaps a doubtful average. The cause of uremia is not known, but the common conception relates the condition to nephritis. At necropsy marked renal degeneration is requisite for confirmation of the diagnosis, and with this is usually found edema of the brain and often colitis. The value of a test having for its aim the estimation of renal function can be measured by the results elicited in demonstrated cases of uremia. The functional test for the kidneys that is being most generally employed by both internists and surgeons in America is that of phenolsulphonephthalein. In many cases of uremia the results secured by this test accord with the clinical data secured by other

procedures, but there are notable exceptions in the operation of the test.

The author cites three cases representing three different types of nephritis, in which the diagnosis was made correctly in each instance and was proved by necropsy. The phenolsulphonephthalein test gave a figure approximating normal in all, yet as each case terminated fatally, one would not assert that the renal function was normal. As to prognosis, this test would have indicated that his recovery was almost certain. These cases suggest that the excretion of phenolsulphonephthalein depends on some other factor (circulation?) than pure renal disease, which by its presence or absence determines the rate of secretion by the kidney, probably non-protein nitrogen of the blood.

In the last few years there is notable in the literature an ever increasing insistence on the significance of the non-protein nitrogen (residual, filtrate, incoagulable nitrogen) of the blood in the study of nephritis. When the non-protein nitrogen is so large, as in some cases up to 200 milligrams per 100 cubic centimeters of blood, the outcome of the patient is pretty definitely bad. But these figures even in uremia are not the rule, and it is not at all unusual to find the non-protein nitrogen within the normal variation in cases of chronic interstitial nephritis with high blood pressure. The author cites a case of severe nephritis, with retinal changes, cardiac hypertrophy, and albumin and casts in the urine, with non-protein nitrogen 28 milligrams in 100 cubic centimeters of blood. The clinical diagnosis in this case was uremia, and death occurred on the fifth day after admission.

The author concludes that such tests and methods of investigation are undoubtedly valuable. Correctly applied they stimulate interest and lead in the long run to broadened knowledge. But just so soon as such methods are regarded as ultimate criteria, we are led first into errors in diagnosis, and from that creep into narrowed medicine and false ideas as to the pathology of a disease entity.

SOKODU, A NEW DISEASE. Translated by Joseph Cuneo, M. D., *Denver Med. Times*, December, 1913. This is a malady which was until recently unknown in Europe, although pretty well generalized in China and Japan. The first victim of sokodu in Europe was an Italian peasant of Tuscany, who had never been outside of his own county. How did he contract the disease? The means by which this infirmity is transmitted, as is the case in bubonic plague, is principally the rats, with the difference that the transmission of sokodu by said rodents is more difficult than in the case of bubonic plague. While that terrible malady can be transmitted by contact alone with rats infected with the disease,

or by the simple bite of fleas which have fed on the blood of the rats, it has hitherto seemed necessary, if men contract sokodu, that they be bitten by an infected rat. Therefore the question, "can sokodu develop in human beings in any way other than from rat bites?" European doctors who have deeply studied the malady in the Extreme Orient, do not unanimously agree upon this point. Some of them affirm that the rats are the real cause of the contagion, others claim that the infection can be transmitted from one human being to another. One thing sure is the fact that in China, there are persons affected with sokodu who have never been bitten by a rat. This argument would seem conclusive with regard to that point in the transmission of the disease. It was proven that the Italian peasant had been bitten by a rat. The supposition is that the animal which caused the disease must have been on board of some ship coming from the extreme Orient. Without any loss of time the most rigorous sanitary measures were taken, and a great number of rats were killed in the Italian community where the first case of sokodu occurred, and the spread of the disease was prevented.

Everything seems to indicate that the malady is caused by a micro-organism, but up to the present time it has been impossible to find it, either in the lesion produced in the patient by the bite from an infected animal, or in the patient's blood.

On or about the fifteenth day after infection the patient is taken with chills, fever, headache and vomiting; later the fever becomes intermittent, and the body is covered with very deep pustules, causing intense pain; the pustules may disappear, or appear again at various periods of time; in some cases this phenomenon occurs during a period of years. Sokodu is a malady very difficult to cure. When the disease is in the acute stage, there are very painful cramps in the legs, and disorders of vision. As a constant sequel of sokodu we find conjunctivitis in every case, with the result of a very marked alteration of the eyeball.

The plagues of Asia and Africa, with which the Europeans come every day into contact, on account of their ungovernable lust for commercial expansion or political domination, are slowly disseminating themselves throughout all the European nations. First the sleeping sickness; now will follow sokodu, and after this disease will follow others which at present seem confined to those countries which are awakening the greed of the European nations.

This transmission of disease is like a revenge which the peoples of Asia and Africa are taking against the Europeans, who, under the pretext of civilizing them, are unlawfully encroaching upon their rights and are infamously appropriating their possessions. —*Vida Nueva*, Havana, August, 1913.

THE PROPHYLAXIS AND TREATMENT OF TYPHOID FEVER BY THE ANTI-TYPHOID VACCINE. Gregoria Araoz Alfaro, *La Semana Medica*, October 30, 1913, quotes Vincent to the effect that the vaccine causes the formation of a great quantity of antibodies. The agglutinating power oscillates between 1-60 and 1-1000, but may be as high as 1-5000

Block and Creuze studied the blood after the inoculation of the Chantemesse vaccine. At times, 6 days after the first injection, the agglutination reached from 1-100 to 1-500 and more. After a series of injections the agglutinative power increases greatly, even to 1-20,000. In four months it was found to be from 1-200 to 1-1000. After a year in more than half the subjects, it was still 1-100.

In this work Alfaro prefers the Besredka vaccine. He reports a series of typhoid cases—most of them children—to whom this vaccine was administered.

He concludes:

1. That the antityphoid vaccination has demonstrated its efficiency in a manner indisputable and on a large scale. (Especially that of Pfeiffer & Kolle, Russell, Vincent, Wright-Leishman.)

2. He believes that all the American countries should prepare one of these vaccines in sufficient quantities to immunize all who may desire it, and that its use should be compulsory in epidemic or endemic areas and among troops in camp.

3. He believes, further that the method Besredka is destined to produce an immunization more rapid and more lasting than vaccines containing dead organisms.

4. In the treatment of typhoid fever, the Besredka vaccine can be employed with positive results. The reaction produced is negligible. Three to four successive doses of $\frac{1}{2}$ to 1cc in children, and 1, 2 or even 3cc in adults, daily, or with a day's interval, shortens the duration of the illness, improves the general health and hastens the decline of the fever.

It is important to start the treatment promptly and, in the presence of an epidemic or when confronted by a clear picture of the disease, the Widal reaction should not be awaited.

POISONING FROM ANILINE DYES. Creyz, *Jour. de Med. de Bordeaux*, August 3, 1913, reports two cases of syncope, one with cyanosis and melanuria, due to dying tan shoes with aniline black, and a similar case due to aniline green in stockings. In the latter case, the symptoms came on after wearing the stockings for about six hours, when the patient, who believed that her dizziness was an indication of pregnancy, would go to bed and recover. Several attacks occurred before pregnancy was disproved and the stockings destroyed.

CONTAGIOUSNESS OF LEPROSY. *Public Health Bulletin No. 1*, in an article by George W. McCoy, surgeon, and William J. Goodhue, M. D., "The Danger of Association With Lepers at the Molokai Settlement," gives the following conclusions: "Of 119 men, practically all Hawaiians or persons of mixed Hawaiian blood, living in the same house with lepers, five (4.2 per cent.), developed leprosy. Of 106 women, practically all Hawaiians or persons of mixed Hawaiian blood, living in the same house with lepers, five (4.71 per cent.), developed leprosy. Of 12 women, all Caucasians, who lived in such contact with lepers as is necessary in administering to their bodily and spiritual needs, none developed the disease. Of 23 men, all Caucasians, who lived in such contact with lepers as is necessary in administering to their bodily and spiritual needs, three (13 per cent.), developed the disease. So far as we could ascertain, the shortest period in which the disease developed after the person entered the settlement was three years (2 cases), and the longest 17 years.

FLOATING SPLEEN AND ITS RELATION TO OBSTETRICS AND GYNECOLOGY. Montuoro *Ztschr. f. Geburts, und Gynae*, says that floating spleen appears to be a disease peculiar to the feminine sex, as shown by the overwhelming majority of the observed cases. The reason for this has not been satisfactorily explained. Enlargement of the organ alone will not account for it, for while malarial splenic tumors are more frequent in males than in females, prolapse of such a spleen is never found in them. According to a number of authors the spleen becomes congested and enlarged during pregnancy, and this may have some bearing upon the etiology. In general, the factors concerned in the causation of floating spleen comprise enlargements of the organ, changes of the peritoneal folds, reduction of abdominal pressure, relaxation of the abdominal walls, etc., in connection with a traumatic factor or vomiting. While any of these conditions may be present in pregnancy, they do not suffice for an explanation, since otherwise floating spleen would be much more frequent during this period than at other times. Even the changes in the thoracic and abdominal organs caused by the wearing of a corset cannot be considered of etiological significance, because the majority of splenectomies have been performed in peasant women who do not wear corsets. Floating spleen has been observed in all regions of the abdomen and may contract adhesions with any of the abdominal or pelvic organs. Its presence only becomes serious when a twisting of the pedicle takes place because of the severe resulting changes in the splenic structures as well as the

inflammatory reaction in the peritoneum and neighboring viscera. If pregnancy occurs in a subject of floating spleen the organ may be compressed between the uterus and pelvis or its pedicle may become twisted, requiring resort to splenectomy. Fortunately, this operation gives a favorable prognosis both as regards the mother and the continuation of the pregnancy. Floating spleen is rarely correctly diagnosed, the tumor being very likely confounded with inflammatory swellings or neoplasms.

CERVICAL RIBS. *Soc. Med. des Hop.*, July 11, 1913, reports four cases. In one there was Raynaud's disease, in two Claude Bernard's syndrome, in one hereditary syphilis which leads to the suggestion that the formation of extra ribs may be a syphilitic dystrophy.

BRILL'S DISEASE. Albert E. Roussel, of Philadelphia, *Md. Med. Jour.*, January, 1914, reports four cases and believes the fever identical with typhus which is probably not so rare as usually considered. This seems to be the consensus of opinion.

CULTURE MEDIUM FOR GONOCOCCUS. A. Lumiere and J. Chrevotier, *Prog. Med.*, December 20, 1913, 6 grams of albumin in 1000 c.c. of beer must is sterilized at 115. C., filtered hot and neutralized; again sterilized at 110 for ten minutes. As used, it is advantageous but not necessary to add 10% of horse or ass serum. Cultures may be made in 8 hours.

INFLUENCE OF RADIO-ACTIVITY ON PLANT GROWTH. The November, 1913 issue of *La Radiumculture* contains several illustrated articles, showing the increased growth of beets, potatoes, Brussels sprouts etc., under the influence of radio-active powders, as compared with controls.

RADIUM IN PROSTATIC CANCER. O. Pasteau and Degrais of Paris, *Can. Pract & Rev.*, December, 1913, report several cases, the radium being introduced through the elbow-catheter with lumina. While several incompletely treated, recent and unsuccessful cases are mentioned, the general conclusion is that the action is favorable, inoperable growths being reduced to operable condition.

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ORIGINAL ARTICLES

Of What Does the Universe Consist?

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Professor of Surgery, 1883-1914

Lecture at the University of Buffalo, February 1, 1914.*

THIS question has baffled philosophers of the past and present and will baffle those of the future, in all probability, until some new method of bringing information to our finite senses is afforded from some most unexpected source.

But suffice it for our present purposes to say that the general concept of the universe implies an inconceivable, limitless space, occupied by something to which, for want of a better name, we give the term—*matter*. To define *space* is as impossible as to define *matter*. Aided by what knowledge we have we permit our imaginations to run riot, and then try to conceive of space conditioned by dimensions to which we can attach no limit, and then, beginning again where that concept leaves us, we may endeavor to enlarge its boundaries by some similar process, and even then feel that we have not reached the limit of that which is our limit, if limit there be.

So, too, regarding *matter*. The usual concept of matter is as of something which occupies, possibly fills, this space. Such appreciation of matter as we really have must come to us through the senses of sight, hearing, smell, taste and touch, which reduce it to very meagre terms. Applying processes of reasoning to facts accumulated through the senses we gather a certain amount of knowledge regarding distant objects, such as the planets, the sun and the stars. From these distant bodies, by means of some otherwise inappreciable medium, there come to us *vibrations*, which we interpret as material expressions of objects far distant from us.

This knowledge is then transmitted apparently by means of vibrations, and it is impossible to conceive of vibrations without supposing a medium which may vibrate. This medium has, in time past, been called the *ether* of space—and, while inseparable from our concept of matter, has nevertheless taxed the imagination of scientists to the very utmost. Until very recently this

* This is the last paper written by Dr. Park and, so far as known, the only one not already published or awaiting publication at the time of his death.

ether of space has been regarded as a subtle, imperceptible, wonderfully tenuous medium, more rarefied than any known gas, capable of penetrating and permeating every other substance known, and differing from every other substance by virtue of this very tenuousness and permeability. To its vibrations were ascribed the phenomena of light, just as those of sound are to be ascribed to vibrations of the air. Only through this ether also could be transmitted that most mysterious agency known, namely, *gravitation*. For all the known phenomena of light certain time is required, and the rapidity of its transmission has been accurately recorded by methods and instruments of extreme precision. For the phenomena of gravitation no satisfactory explanation has ever been afforded. Our concept of it is as of a mysterious force which makes itself felt as much more rapidly than light as light does than sound, perhaps even exceeding this celerity. Nothing that is known or could even be postulated regarding gravitation would meet a single actual need called for in its explanation. Nevertheless, that a force or an agency could be exerted through nothing, i. e., absolutely *no medium*, is to negative any concept that can be entertained.

So rapid has been the progress of accumulation of data, and of the application of rigid mathematical formulation and calculation to their interpretation, that I, for instance, see myself today in a position where I have been compelled to forget nearly all the elements of science which as a boy I acquired; that is to *unload them* and to take on an added burden of facts and of logical and rigorous analysis which, for one placed like myself, is doubly hard, because of the double task imposed; namely, to *unlearn the old* and to *acquire the new*.

It is in regard to some of these facts acquired in this effort that I hope to interest you today.

More than two thousand years ago the ancient Greek philosophers taught that the universe consisted of four elements—earth, air, fire and water. This teaching was long ago abandoned, and the world was taught that the universe is made up of certain so-called “elements,” meaning thereby varieties or forms of matter, each of which has been reduced to its simplest, utmost divisible and ultimate form, and that from this form no further reduction from anything else was possible. As time went on, and this time has mainly been included with the past two centuries, these elementary substances grew in number, from one containing but few units, up to perhaps fifty, when I was a lad and first studying, and now to about ninety with, possibly, others to follow, as I shall endeavor to make appear to you. A few of these, like gold, silver, etc., found in their native state, were known to the ancients; others have been discovered by accident, a consid-

erable number of them by aid of the spectroscope, and a few of them by a refinement of chemical manipulation and laboratory jugglery, which must for all time challenge the admiration of the scientific world. As the accomplishment of an actual marvel in this last respect I refer to the isolation and study of the radium elimination, by Rutherford, who has thereby not only added the element—Niton—to the list, but has demonstrated a skill in manipulation of minute amounts that should characterize him as the veritable juggler of the scientific world.

It seems but yesterday that we were compelled to say that space is occupied by matter, by force and by ether. So rapid has been the march of reason and science that today the scientific world is asking whether force and electricity do not constitute matter, and whether, therefore, space is not *filled by force and ether?*

Here must come in the legitimate use of the reasoning faculty to which Tyndall called attention in one of his charming essays, speaking of it as the "Scientific Use of the Imagination." To it most of our progress has been due; without it further advance would be impossible. It includes that *tour de force* of the mind which first postulates a certain necessity and then leads on and upward to its demonstration. For instance, the concept of the atom is as of something so small that a knowledge of itself can never come directly to our senses, and we know it only by studying its effects, much as one may regard the flash of lightning as a manifestation of some unseen or unknown force. Many centuries ago its existence was postulated by Leucippus, by Lucretius and by Democritus. The very term—*atom*—means the ultimate, the indivisible, last particle of matter into which it can be regarded as possibly divided. Existence of the atom has been demonstrated during recent years to the satisfaction of all capable of appreciating it. Then came a demand for something smaller or finer yet, and thus were postulated the corpuscles, the ions, and the electrons. About these terms some confusion exists, the terms being variously applied by various authors.

These terms do not comprise the concept to which we give the name—*molecule*—implying thereby the union of several atoms, or even of a considerable number of them, which act as a unit and apparently comprise the last stage in the subdivision of a given substance. In other words the molecule of a substance, if reduced to atoms would simply contain its component parts.

As discoveries have accumulated the relations which ever exist between mathematics and physics, including chemistry, become more evident and more complicated. The ideal chemist, the electrician, or the physicist of today must be an expert mathematician. Consideration of these relations takes us back even

to the old days of Pythagoras, who laid down the maxim that the "universe is founded on number." The necessity for this relation may perhaps be illustrated by the fact that the so-called "conic sections," namely the circle, the ellipse, the hyperbola and the parabola, were all known to the ancient Greek geometers, but by them were regarded as of purely speculative value. Notwithstanding it was these which enabled Kepler, some twenty centuries later, to announce with precision the motions of the planets about the sun; while, later yet, most of our astronomers have shown how intimately concerned are conic sections and astronomy. Again it was the theory of "Imaginary Exponentials" applied to the study of vibrations that made wireless telegraphy possible; and it was the "Theory of Groups" which enabled our own American scientist, Michelson, to develop by experiment the existence of that feature of "*Relativity*" which has been such an immense advantage to the investigations of science. Therefore, it has been mathematical theories which have made possible the evolution of the theory and the practise of physics, as we now have them, in so many various manifestations.

Probably the only opportunity in this lecture, today, of illustrating the relation of number to nature applies in the so-called "*Periodic Law*," and it is largely to this that your attention is invited; and it is solely for its presentation that I constructed the accompanying charts.

But first something about the atoms and the Atomic Theory.

A few points in the history of the atomic theory may help to better illustrate our present views regarding them.

In 1789 Sir Humphrey Davy and Count Rumford (who, by the way was an intimate friend of one of my own forbears) upset the theory of heat held at that time, and showed that it was really a mode of molecular motion, any given substance being hot by virtue of intensified molecular activity within it, and the reverse down to absolute zero.

A year or two later Young upset the corpuscular theory of light, at least for the century following, and apparently proved that it was really a wave motion in that newly conceived medium the ether.

Then, in 1800, these men, along with Volta, who discovered the Electric Pile, founded the *Royal Institution*, which has really done more, in the decades following, than any other body of learned men to advance the science of physics.

In 1802 the dark lines in the Solar Spectrum were first noticed by Wollaston, who in this way laid the foundation for the science of spectrum analysis, to whose elaboration we are probably as much indebted as to any other department of science.

In 1803 (the year following) Dalton advanced his Atomic Theory, and thus gave the impetus to that vast advance in chemistry and, later, to chemical physics, which has permitted this statement, e. g., of the views of today.

We will pass over the intervening years of the past century, and turn to its concluding decades, and speak briefly of the discoveries of Crookes, who, in 1878, produced his *Cathode Rays*, and claimed that they demonstrated a *new, fourth or radiant state of matter*. Then Hertz discovered that these rays might traverse thin sheets of metal, and, in 1893, Lenard brought them outside of the vacuum tube into the air.

It was in 1895 that Roentgen developed Lenard's work and discovered, as it were by accident, the so-called *X-Rays*, quickly demonstrating their chief properties. The distinction should be made here, as well as later if they are again considered, that the X-Rays should not be confused with the Cathode Rays—the latter are given off only in a highly exhausted vacuum tube. The X-Rays are not produced until the Cathode Rays undergo some sollosion as, for example, with the glass wall of the tube, in consequence of which collision they assume the properties and peculiarities now generally ascribed to them.

Next year, 1896, quickly followed the discovery of radio-activity, by Becquerel, in Uranium and ores containing it.

The following year, 1897, J. J. Thomson demonstrated that the Cathode Rays are streams of actual matter, and consist of particles no larger at least than one one-thousandth of the size of the hydrogen atom, which, up to that time, was the smallest particle of matter known to scientists. Of these we shall have more to say.

In 1903 Radium was discovered by the Curies. During the three or four years following, by the efforts especially of Rutherford and Soddy, there was developed a new science of sub-atomic chemistry, in connection with the disintegration theory of radio-activity, which has astonished not only general students of the subject but expert scientists. In fact in the development of the feature of radioactivity, Rutherford and his pupils and assistants have astonished the world by their marvelous grasp of scientific principles and their marvelous ingenuity in devising demonstrations, as shall later appear.

The past century also has contributed wonderfully to the elucidation of material phenomena, beginning with Oerstedt, who, in 1821, first showed the intimate relation between electricity and magnetism; then Faraday, who, in 1831, developed the Laws of Induction, and, later, the relations between electricity, magnetism and light, which were subsequently and collectively developed by Maxwell in his Electro-Magnetic Theory of Light, whose final

verification came through the experimental researches of Hertz, to whom we are really indebted for wireless telegraphy.

The introduction of the induction coil, permitting the production of high tension currents, especially through highly exhausted tubes, gave the first impetus to the minute study of what goes on within that vacuum through which is passing an electric current. Crookes (now Sir William Crookes), to whom we are in the main indebted at least for our introduction to this subject, showed that the rays which proceed from the cathode, i. e., the negative pole, through a vacuum, actually consist of streams of minute particles, traveling at intensely high speed, each of which carries a *negative* charge of electricity. In this way we account for their diversion, and the fact that such a stream widens in its passage, and constitutes that fourth state of matter which is neither solid, nor liquid, nor gaseous, to which he gave the name of *Radiant Matter*. Over this state there raged a tedious controversy for two years. It seems now, however, to be well established that this is in effect an actual stream of particles of matter whose actual mass cannot be considered as greater than that just mentioned. That matter may exist in this minute form, in fact *must* so exist, has been shown in so many different ways that it may now be accepted as indubitable and authentic. The most demonstrative experiment consists in diverting this stream by a magnetic current; unless it were an actual stream of particles it could not be so diverted.

The result of these studies has been to make it plain beyond all possibility of doubt that *electricity, like matter, is atomic in structure*; that there is a so-called unit charge of electricity; that all other charges are multiples of this; that these particles may be given off from the white hot filament of an incandescent lamp, or from zinc exposed to ultra violet rays; by passage of X-Rays through a gas, and by radiation from a radioactive substance. In fact the charges associated with this discharge have been measured, and have been so compared and contrasted with each other as to make positive their existence and identity.

In 1898 Thomson made one of the most beautiful experiments ever devised, based on the formation of clouds. In this he showed that out of the small particles which constitute an electric charge it was possible to produce a cloud of watery vapor, which could be charged in accordance with the requirements of the conditions, especially that of the rarefaction of the air contained within the vacuum tube. As the result of experiments similar to these conducted by many observers, who have taken into consideration all possible points, the conviction has been forced that there exists an ultimate charge or an actual atom of electricity, and that when we deal with the cathode ray we have to deal

with an actual entity, not larger than one one-thousandth of the smallest particle (the hydrogen atom) ever previously conceived of and probably much smaller. These ultimate particles seem to be identical, no matter from what gas or source derived; hence, apparently they are the ultimate constituent of matter. It is interesting to contrast the inevitable deductions from these studies with "Prout's hypothesis." Prout believed the atoms of all other elements to be built up of hydrogen atoms, simply because these were the smallest recognized. According to this still later view it might appear, and to some does so appear, that all atoms, even those of hydrogen, are at least to some extent, built up from particles of one common but individual kind.

With this view it would seem necessary to give some identifying term or name to these new particles. By some they have been spoken of as corpuscles. Today they are most generally and acceptably designated as *Electrons*. If, then, one were asked—"What constitutes an electron?"—he should reply that it is an infinitesimal particle, whose apparent or calculated mass or volume is about one one-thousandth that previously ascribed to the hydrogen atom, and that it bears a negative charge of electricity, equal to the number 3.4×10^{-10} , i.e., $1/3.40,000,000,000$ mm.

We have no time more than to mention the so-called Canal Rays described in 1896, by Goldstein, whose stream can be deflected by both magnetic and electric fields, although more feebly than the Cathode Rays, which would indicate that these particular rays must consist of particles larger than that above mentioned, each of which carries a positive charge instead of a negative.

J. J. Thomson has just concluded some most remarkable researches regarding the nature of these particles which are thus projected through a small opening *behind* the cathode instead of from in front of it. Their importance obtains especially in this fact, that by his researches there has been opened up a new method of analysis, more sensitive even than that afforded by the spectro-scope, since with only one-hundredth of a milligram of a gaseous element present in the tube, and an exposure less than one-millionth of a second, its atomic weight can be determined within an accuracy of one per cent., and not alone this but even its physical condition. Scarcely any discovery in the whole list of recent developments is more interesting or important than this, and yet we hear but little of it.

When dealing with Radium we shall have, again, to speak of the X-Rays, since the so-called Gamma Rays are those from which the public seem to expect much in the way of therapeutic advance and the cure of various diseases. It is most important

then to know what the X-Rays are. Here again Thomson has figured brilliantly in the demonstration that the X-Rays are really due to pulses in the ether, produced by sudden stoppage of electrons in their career; which means that from the negative charge of an electron a Faraday ray of force, traveling with it through the ether with the same speed, which is perhaps one-third of the speed of light, is suddenly brought to a stop by a collision with some other particle. The result of this is a new impulse, which, being single, that is, not a train of waves, can be made to show the ordinary phenomena of reflection, refraction, and the like, which only a wave can produce. It is, nevertheless, an instantaneous and electro-magnetic disturbance in the ether. This is why the X-Rays originate at the point of impact or collision of the Cathode Ray, and why they are not subject to any influence by a magnetic field. It means that *one* Cathode Ray, colliding with *one* atom, may produce one X-Ray, and that this X-Ray colliding with another atom may set up again a Cathode Ray; this process going alternately, but gradually weakening until it ceases. That the X-Rays are a corpuscular stream furnishes the explanation of their extreme penetrating power. This must be ascribed to the fact that they are electrionic in size, that is far smaller than the atom, and that they are electrically neuter, i. e., negative.

THE PERIODIC LAW.

Up to 1860 the proportions according to which elements unite had been regarded as of little importance, and no attempt had been made to study or to take advantage of them, nor to calculate them with absolute accuracy. For instance, until that time three different weights had been proposed for carbon. But this situation became intolerable, and in 1860 an International Conference took place, at which Cannizzaro read an epoch-making paper in which he called attention to their real significance. Attention had been already called to the fact that iron, nickel and cobalt had almost the same atomic weight, and to the fact that the weights of chlorine, bromine and iodine seemed to increase by a fairly constant increment. The English chemist, Nowlands, took the first definite step, when he showed that by arranging the elements in the order of their atomic weights it would be found that every eighth element was a sort of *replica* of the eighth preceding. These "eighths" he called the *octaves*.

In 1869 the Russian Mendeleeff, and the German Lothar Meyer, independently attacked this matter, the former giving it by far the more comprehensive study. Thus it came about that Mendeleeff put in words the so-called Periodic Law, in which he stated that "*all of the properties of the elements, both chemical*

and physical, vary in a periodic fashion in accordance with their atomic weights." With amendments and additions the chart placed before you represents the latest acceptance of Mendeleeff's views.

In this they are arranged vertically in groups and horizontally in series.

The following are among the most notable features that may be briefly pointed out in this table:

Follow each series horizontally from groups one to seven, and there will be noted a constant increase in their atomic weight, differences between them being nearly the same.

Note that the eighth element, namely, Sodium, resembles the first, Lithium, beneath which it is placed.

This resemblance holds good especially for the first four rows.

When we come to series or row five, there appears quite a change in this respect, and resemblances are greater between alternate series, thus the sixth resembles the fourth, the seventh the fifth, the eighth the sixth, and the tenth the eighth (as indicated in the table).

Reading downward again, the various groups contain elements which are closely related in their properties. The resemblance is even more marked when alternate rows are compared.

Again, as the atomic weight increases common or characteristic properties become either much more distinctly or much less distinctly marked.

Again, reading downward, the elements tend to become more and more base-forming, and more metallic as the atomic weight increases. So again with their malleability, their melting point, and their specific gravity, these variations recurring with striking regularity.

The so-called *Triads* to which Döbereiner first called attention so long ago as 1829, meaning groups of three, and already alluded to, are placed in group eight in place of the single element they are supposed to represent.

Another striking feature is that read horizontally or in series the specific gravity is highest in the middle groups of each series.

A still more striking feature, which I could not present in these tables, is the so-called *atomic volume*, which is calculated by *dividing the atomic weight by the specific gravity*. It has been found that even more startlingly regular relations are found in these figures.

Again, read from left to right along the series and the elements become in turn more and more electro-negative. On the other hand, read downward in groups, from series two, they become more and more electro-positive.

One may well stop here and try to sum up the purpose and the value of this arrangement, as shown on this condensed table. The periodic classification has, at least, four practical values in that it permits us

- (1) To classify elements in natural groups.
- (2) To fix the atomic weights of elements whose equivalents are yet uncertain.
- (3) To predict the possible existence and properties of elements not yet discovered.
- (4) To correct errors in weights already assigned.

These are matters of far greater importance than at first were readily appreciated.

For example, the atomic weight of Indium could not be definitely determined until its valence was known. Experimental determination of this permitted its correct assignment in the table.

The fourth application has proved also of the greatest value. Mendeleeff held that many atomic weights had been incorrectly determined, and in almost every case his assumption was proven correct.

This table has, moreover, strikingly illustrated the value of "scientific use of the imagination," as, for instance, when Mendeleeff predicted, in 1871, that there would be discovered an element whose atomic weight would be about 69, of low melting point, of specific gravity 5.9, that it would decompose steam at red heat, that it would be more easily volatilized than aluminum and that it would be discovered by the spectroscope. Only four years later this prophesy, with further details, was strikingly verified, in the discovery of the rare metal known as Gallium, which was first detected by the spectroscope and proved to have properties practically identical with those which he had prophesied for it. Again, in the discovery of the so-called rare gases of the atmosphere. Just as soon as Argon had been identified, and Helium measured, and its A. W. determined, it followed naturally that the discovery of other gaseous elements would be announced—and these we have, their formulæ, etc., being given in the table.

True it is that there are yet not only vacancies but discrepancies in this table. Time fails in which to call attention to them, although a few of them are most glaring. It is not improbable that two or three at least, if not more, of the so-called elements are yet compounds whose primaries have yet to become known to us. This is the case, for instance, with Tellurium, which seems out of place in its present position. It is true also of Argon, with its atomic weight greater than that of potassium. These discrepancies, however, serve only to give added interest and to

excite to still more accurate study, but there can be no doubt but that behind it all there is concealed some vast so-called Law, that is some statement which covers the nature and inevitable sequence of events in the constitution of matter, and the changes that go on within it.

I have constructed a separate table which I venture to call the "*Apocrypha*," because it is not yet fully authenticated nor made "canonical" by the chemists. It contains the names of a number of elements discovered recently, most of them among the so-called rare earths. Seen by the spectroscope they appear to be elemental, but they have not been collected in sufficient amounts to assign them to any particular place in the general table, nor is it essential for our purposes they should be. Three of them—Actinium, Ionium and Polonium, will come in for further consideration when we deal with Radioactivity and Radium.

This consideration of the Periodic Law, based as it is upon atomic weight, has been deliberately brought under revision today for a double purpose. It is in and of itself a most fascinating introduction to the general study of chemico-physics, because it deals so intimately with the constitution of matter, and especially with the individual features attaching to each atom. In both these respects it forms a necessary introduction to the study of *Radioactivity*, if that is to be intelligently attacked. Unless one realizes that the atom is not to be regarded as formerly viewed, but is held to be a small cosmos within whose inconceivably minute boundaries there is constantly going on a perfect whirlwind of motion or activity, on the part of electrons, corpuscles, or call them what one will,—unless, I say, one can form some concept of something of this kind one can have no conception of what it means to have particles given off from a given atom by which its atomic weight is reduced, its physical properties altered, and all this accompanied by certain phenomena of which the ingenuity of the chemist has enabled us to become aware; as when, for instance, from the atom of radium a particle flies off and strikes upon a zinc sulphide screen the fact becomes known because of the tiny flash of light which makes the impact, and then and there result one atom of Helium and one atom of Nitron, formerly known as Radium emanation; the atomic weight of the former being four, of the latter 222, and the total 226, representing the weight of an atom of Radium. Disintegration of the atom, then, is inconceivable without that modern and enlarged view of the atom itself which is now everywhere accepted, but which is a very different notion from that inculcated in me, when I was a boy studying elementary chemistry.

The charts herewith exhibited include first a graphic presentation of the facts underlying the so-called periodic law, as im-

proved by Mendeleeff, who took advantage of what had been already done, who pursued his studies independently of Lothar Mayer, and who arranged his table in more illustrative and convincing form.

The other charts are enlargements, which contain in their first column the series as presented in Chart 1; then the name of the element with its symbol. In the next column is presented the valence of each element; this means its combining capacity. This combining capacity must have a standard, and for this purpose we select, as for so many, either the hydrogen or the oxygen atom. In the lettering at the left upper corner the letter "R" stands for the element, which ever it may be, while the figures attached to it represent the number of its atoms which combine with one atom of oxygen to form a molecule of the new substance thus made; or with hydrogen, since the relationship is preserved throughout each group.

In the molecule of water, for instance, whose chemical formula is H_2O , we say that oxygen shows a valence of two, inasmuch as in this formation two atoms of hydrogen are required for each one of oxygen. In other words the valence of a given element is the power of the single atom to hold from one up to five, or even seven atoms of hydrogen.

There is no time now to explain how this atomic weight is calculated; in fact so difficult are some of these calculations that the exact weight beyond the decimal point is in a few instances still under discussion; nevertheless, it is known accurately enough for all our present purpose.

In the next column is given the specific gravity of each element. This means its ordinary weight as compared with water. Then follows the melting point of these elements not already fluid, or gaseous, or it gives the solidifying or the liquefying point if already condensed. These temperatures are given in both Centigrade and in Fahrenheit. Finally, on each table follows the date of the discovery of each element, with the name of the discoverer and its source.

For convenience in demonstration I have indicated by a marking in red each of those rare elements which are either rarely seen or are peculiarly difficult to procure, but which I have here on exhibition before you.

One of the most important features of this table are the figures in the column of *Atomic Weight*, given in red, which indicate the multiples of the first element in each group, with their steady increment which constitutes one of the most striking features of such tables. Certain gaps or vacancies will be noticed, and from what we know of the past the future will permit the discovery of elements to fill these vacancies. It was so, for instance,

recently in the case of Radium, and one of the most excellent demonstrations of the value of this tabulation was afforded by Mendeleeff, who not only foretold the early discovery of at least three of the elements now included in this list, but had predicted with an extraordinary degree of exactness their physical characteristics and the combinations into which they would readily enter. (See above). No more striking verifications of scientific prophesy can ever be afforded than these predictions of Mendeleeff, and it is probably not expecting too much to believe that ere long there will be found elements to occupy every vacant space in this table. In fact, on the other (the "Apocrypha") chart included in this presentation, I have placed the names of a number of newly discovered elements, about most of which very little has yet been learned. Of at least three of these—Actinium, Ionium and Polonium, I shall have to speak when considering Radium. It will be seen that the others all have very high atomic weights, yet not enough has been learned about them to make one feel sure enough to insert their names in the large table.

THE ATOM.

The present day view of the atom makes of it a deliberately balanced structure of greatest complexity, while the phenomena of radioactivity suggest that its direct balance is occasionally upset, whereupon it disintegrates with explosive violence. How can such prodigious energy be stored up within an atom? To come down to figures, both Einstein and Lewis conclude that the energy contained in a gram of matter (we might say, the energy constituting that gram of matter) is no less than 900 trillion ergs (or 9×10^{20} ergs), that figure being the square of the velocity of light in centimeters per second. If this figure is correct it means that an ounce of matter—any sort of matter—contains enough energy to blow nearly a million tons right off the earth.

How such prodigious energy is stored within the atom is still a mystery. But the phenomena of radioactivity have familiarized us with an astonishing reserve of energy contained within the atom, and absolutely unsuspected a few years ago. They have also brought home to us the suggestive fact that the mass of an atom may, in some rare cases, undergo a gradual diminution, accompanied by a relatively enormous evolution of energy.

The mathematical as well as the experimental methods of counting the atoms or the molecules, and of estimating their relative size, is another of the most fascinating yet difficult problems of modern science; nevertheless, it has all been done, and done with such relative accuracy, in so many different ways, and by so many different individuals, that checking up accounts as it

were, or by comparison of results, there have been obtained estimates of whose accuracy no reasonable person can longer be in doubt. Even thirty years ago Professor Rowland of Baltimore, considering the spectrum of iron, with its thousands of lines, each indicating a different rate of vibrations, uttered the remark that, "*compared with an atom of iron a grand piano must be a very simple structure.*" Of an aggregation of smaller particles the atom must then be built up. The electron has been shown to be of the order of 10^{-13} centimeters (one hundred trillionth), and the atom to have a diameter of 10^{-8} centimeters; in other words, one is the one-hundred thousandth of the diameter of the other, while the spaces between the electrons have a length probably of one hundred million times their diameter. This is in effect a sort of planetary system within the atom.

The velocity with which an atom of Helium is projected from Radium, as the latter is successively reduced to its lower forms, would require an electric field of more than four million volts, were it not that this energy is reduced by the internal conditions of its rotation within the radium atom, since a single electron moving in a single orbit must soon lose its energy, although if many electrons are working in the same orbit this is not true to the same degree.

J. J. Thomson has constructed a most interesting model of an atom, showing how only a certain number of electrons can rotate in stable motion, i. e., steadily in one ring. If more electrons are allowed the system breaks up into other rings; this can go on to a somewhat limited extent, and atoms having within them circulating systems of a given order might be expected to behave themselves more or less similarly; in other words, to have group characteristics and thus to deserve certain places in the Periodic Table.

Working upon this basis a very interesting arrangement of the elements has been constructed, into which, however, we have no time to enquire. The main object today is to give you an idea of the internal activity of the atom. This attempt I will conclude with the following statements: that if two million molecules of hydrogen could be arranged in a row they would occupy one millimeter (a twenty-fifth of an inch). Fifteen thousand million, million, million of them would weigh a grain; while when hydrogen is at its own freezing point each molecule makes on an average nearly eighteen million collisions per second, at each of which its speed is altered and diverted, yet on the average it has a speed of over six thousand feet per second, while it moves only about a quarter of a millionth of an inch between collisions. In one cubic inch, then, of hydrogen, under standard temperature and pressure, there must be about six million, million, million

molecules; this number holding for all gases in accordance with Avogadro's Law.

ETHER.

Sir Isaac Newton was perhaps the first to employ the term—Ether—for that medium which fills space, space which not only appears to be empty, but that which *seems* to be full, because ether must penetrate and permeate between the atoms and exist in the interspaces of every material in the universe. Newton postulated the elasticity of this ether, and in one of his "Questions" enquired whether the planets, comets, and all gross bodies could not perform their motions more freely in a medium denser than quicksilver and gold, and whose resistance was so small as to be inconsiderable.

Newton's views, as among the earliest of value, may well be contrasted with those recent expressions by Sir Oliver Lodge ("The Ether of Space." New York, Harper & Bros., 1909), who, in 1909, stated that he was able to advocate a view of the ether that makes it not only uniformly present and all pervading, but also massive and substantial beyond conception. It is turning out to be the most substantial thing, perhaps the only substantial thing, in the material universe. Compared to ether the densest matter, such as lead and gold, is a filmy, gossamer structure like a comet's tail, or a milky way, like a salt in a very minute solution. This view of Lodge's is but an extension of the views held by Clerk-Maxwell, when he wrote the article on Ether, in the ninth edition of the Encyclopedia Britannica, and who concluded it by saying—"Whatever difficulties we may have in forming a consistent idea of the constitution of the ether there can be no doubt that the inter-planetary and interstellar spaces are not empty, but are occupied by a material substance or body which is certainly the largest and probably the most uniform body of which we have any knowledge."

To us who have been brought up on a very different concept of the ether it is extremely difficult to regard it as do these most modern scientists. We have been too accustomed to judge externals through the medium of our sensations alone, unaided by our reason. It is the latter which postulates and demonstrates this concept, and we have now to adjust our sense perceptions in accordance with it. Thus regarded we better appreciate how only a small portion of vibrations transmitted are interpreted as light, and how many other kinds of vibratory activity may produce other effects, or appeal as they undoubtedly do to the peculiar sense organs of other living animal forms or, for that matter, even of vegetables. Reduced to their lowest terms all sensations become chemical.

The demands made in this effort correspond only with those made upon it. A body can only immediately act upon that which is in contact with it. Some contactual relation is absolutely necessary, and radiation is but one expression of it. As Lodge reminds us there is between the earth and the sun a gigantic, gravitative pull, equivalent to a force more than that which one million, million steel rods, each seventeen feet in diameter, could stand. Now, what mechanism can transmit so gigantic a force?

What I may say of ether here is of the briefest, and only with the view to notifying you of the demands made by modern science. The motions make figures run riot in our minds, and we become lost in the immensity of the calculations, as well as in their refinement. Lord Kelvin held that the amount of actual matter in space, compared with the volume of the space which it occupies, is infinitesimal; that is, the volume of space is infinitely greater than the total bulk of matter which it contains; otherwise the combined force of gravity would be far greater than actual observation reveals and now appears, that the densest material is of extraordinarily insignificant massiveness as compared with the unmodified ether which occupies by far the greater proportion, if not all, of its bulk, i. e., of said space.

And now we are taken still further when we try to realize with Lodge, that matter is really a *manifestation of the ether*, and that those materials which we have regarded as most dense and solid are but similarly shaped masses of ether which in their own makeup and limits are somewhat less dense or more rarefied. Let me quote another sentence from Lodge, who says (page 103)—“For in every cubic millimeter of space we have, according to this view, a mass equivalent to what, if it were matter, we should call a thousand tons, circulating internally, every part of it, with a velocity comparable to the velocity of light, and therefore containing an amount of energy equal to that of a million horse-power station working continuously for forty million years”; or, as he says, again—“Every cubic millimeter of the universal ether of space must possess the equivalent of a thousand of tons of ordinary matter, and every part of it must be squirming internally with the velocity of light.”

Does not this stagger the imagination and the mental ability of any of us? Or, again, as when he says “that the force with which the moon is held in its orbit would be great enough to tear asunder a steel rod four hundred miles thick.” For those of us who were brought up on the old, and have now to accept this teaching, this staggering extravagance in figures can only make one think of the man who, having amassed a fortune, spends thousands of dollars where he used to begrudge pennies.

Let me conclude these remarks about the ether, quoting once more from Lodge—"That the ether of space is a continuous incompressible, stationary, fundamental substance; that matter is composed of modified and electrified specks or minute structures of ether, which are amenable to mechanical as well as to electrical force, and which add to the optical or electric density of the medium, and that all kinds of energy are due to an excessively fine-grained ethereal circulation, with an intrinsic kinetic energy of the order of 10^{-33} ergs per cubic centimeter."

(Erg—Force to move 1 gr. 1 cm.)

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IDENTICAL ANOMALIES IN TWINS WITH HEREDITARY SYPHILIS. Lefour and Balard, *Jour. de Med. de Bordeaux*, August 31, 1913, report twins which died soon after birth. Both had widely open sutures and fontanelles, the larger one actual hydrocephalous; both had right talipes equino-varus and lumbar spina bifida, the tumor being about the size of a large mandarin orange. Both were males, one weighing 3,220 grams, the other 2,270.

CONGENITAL TORSION OF THE PENIS. Ayguesparsse, *Jour. de Med. de Bordeaux*, August 31, 1913, alludes to 11 personal observations and 8 from the literature, presented to the Bordeaux Medical Society, January 17, 1910 by Rocher. Rocher found that the torsion affected the entire organ, not merely the urethra and that it was always in the same direction, corresponding to the VI-XII half of the clock, XI representing a complete half turn, which may be exaggerated so as to point to I. Ayguesparsse reports a case in which the turn was between IV and V and accompanied with hypospadias.

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Roswell Park

In addition to the more extensive description of Dr. Park's life and work in other departments, we feel that his impress upon the profession generally, was such that he must be considered as a factor, as well as an individual. After an acquaintance of nearly thirty years, beginning in a boy's hero-worship, continued as a student, and later, in the frequent contacts of professional, club and other associations, it is difficult to eliminate personal sentiment, but justice demands that this impersonal force of Dr. Park's activities should be recognized. The morning following Dr. Park's death, we received with what emotions may be imagined, a letter from him—his very last one, as we learned later—delegating certain duties on a committee and containing these words which, in the light of the sad event, are tinged with the irony of fate: "Within two or three days I hope to be able to get away for a much needed rest of somewhat indefinite length." In 1897, Dr. Park was thought to be fatally ill, due to the remote results of a diphtheritic and of a subsequent septic infection, contracted at operations. This ordeal was a handicap from which he never fully recovered in the physical sense. Yet, in looking back over the nearly seventeen years, we must recognize that he did his best work in spite of it and, within a week or two of his death, he spoke so vigorously, almost sternly, of the general proposition of retirement, that we must recognize that the words quoted were prophetic only by a sad coincidence and that his rest was intended merely to prepare him for future hard work.

In the face of death all men are equal, and, in its appreciation of the men who have gone from it after lives of diligence and probity, the medical profession is no respecter of persons. Yet the dead would, as freely as the living, concede that of all men who have completed their life work in our profession in Buffalo, Roswell Park has achieved the highest degree, not merely of eminence, but of greatness.

Advertising Ethics and Diabetes

We acknowledge the valuable information given by the *Journal of the A. M. A* in its issue of Dec. 20, 1913, and at other times, regarding the actual composition of diabetic foods, and think that the time is ripe for emphasizing certain opinions regarding the general problem involved.

What is diabetes? Within recent years the attempt has been made to limit it to a definite disturbance of the Islands of Langerhans of the Pancreas, involving the lack of secretion of a glycolytic ferment. Unfortunately, this enticing theory is met by some very stubborn facts which seem to show that essentially typic cases of diabetes may occur independently of this lesion. It has even been questioned whether the conception of the insulae as minute ductless glands, differing essentially from the rest of the pancreas, is tenable. The dependence of diabetes or at least of glycosuria, upon disturbances of other ductless glands, notably the thyroid and adrenals, has been pretty well established, though not in an exclusive sense, and a very favorable tendency to connect well established physiologic knowledge with clinical medicine is evidenced by the recrudescence of interest in the glycogenic function or functions. It is very easy to say that mere glycosuria does not constitute diabetes, but it is very difficult to draw a practical line. There is a temptation to connect diabetes with acid intoxication and with disturbance of proteid metabolism. But there are cases which seem to warrant the term diabetes, in which there is no conspicuous, if any, increase of acetone bodies in general or any one of them, cases in which the urinary acidity is not notably increased, cases in which a high elimination of "urea" (which means practically non-proteid nitrogen in general) is either not noted at all or is pretty obviously dependent upon diet. Conversely, there are cases of acetonuria (implying acetonaemia) or of similar occurrence of its precursors, of high general urinary acidity and of high "urea" elimination which do not show marked similarity to ordinary cases of diabetes, not even justifying the French conception of a non-glycosuric diabetes. It is even observed that in cases of what may be considered true diabetes the reduction of sugar and of these other pathologic manifestations tend to occur synchronously or practically so.

There is obviously some physiologic function which enables the animal body to oxidize carbohydrates as ultimately digested into dextrose—or some other simple hexose?—since no such amount of oxidation can occur spontaneously, as normally occur in the body, under comparable conditions, unless some special glycolytic factor is conceded. Naturally, our first thought is of a ferment, and there is considerable evidence that such a ferment exists.

Clinically, the most practical classification of diabetic cases is between those that can and those that cannot be controlled by diet, etc., and this classification assumes more than clinical prognostic importance and implies a strictly scientific line of demarcation, when we reflect that the latter group imply the formation of sugar out of non-carbohydrate material. But it is impossible to draw lines between a mere excess of carbohydrate beyond the normal and more or less idiosyncratic glycolytic strength of the body and true diabetes of the first group, or to be certain that the two groups are absolutely distinct since the latter would imply that normal metabolism does not include sugar formation from non-carbohydrates even to a degree commensurate with glycolysis.

Now, let us define diabetes. . . . Or, rather, let us confess that we are too ignorant to do so. If anyone wishes to show that "we" means the editorial and not the professional "we," he may supply the much desired definition. Of course, we do not allude to a definition that cannot be denied but which does not state the gist of the problem.

All things considered, one of the strongest if not the strongest weapon that we have against diabetes is dietetic regulation. Eliminative treatment, intestinal asepsis and even antisepsis, various other means empirically valuable though not fully explained are of considerable value. Direct sedation, as by codeine, we have almost never employed, and we doubt whether it is of any real value, except in the crudest symptomatic sense. A considerable degree of optimism is justifiable regarding diabetes. Cases of the second, extreme type, in which sugar is formed on a carbohydrate-free diet, are not very frequent, and the majority of cases may be kept in good general health, almost free from sugar in the urine, for years. We may cite a patient who, about seven years ago, passed almost exactly a pound of sugar in 24 hours, who has practiced medicine continuously, has not persisted in more than a moderate regulation of diet, who has indulged in carbohydrate and alcohol occasionally, without obvious impairment of health.

Regulation of diet implies a knowledge of what the diet contains. Herein is the ethical point first alluded to. A diabetic food should be not only relatively low in carbohydrates but it should be very decidedly so. At any rate, if sold especially for use by diabetics, exact statements of composition should be given.

If one will scrutinize the trite tables of what a diabetic may eat, in the line of vegetables, he will be impressed with two facts: most of the "foods" specified are not truly foods at all but fodder; of the "foods allowed" that do contain considerable proportions of starch, the preference over ordinary cereal and other foods rich in starch is due to the fact that the starch is not very

digestible, or that the food produces intestinal digestion by hurrying peristalsis, or that the average patient will not care to eat much of the given food or some other equally superficial reason is apparent. Yeast has been advocated in the dietetic treatment of diabetes, but the reason is not difficult to find. By destroying the starch we have the same ultimate effect as if the patient had not eaten the food at all or only in small quantity but plus the discommoding action of the years on digestion generally. If it were mechanically possible it would be better to give the food with a literal string upon it, or to make the patient vomit after satisfying his appetite.

All things considered, a diabetic food means a harmless carbohydrate food or a food that appears to be carbohydrate but which is not. It is questionable whether one kind of starch is better than another or indeed whether, save for the necessary delay in digestion, starch is better than some form of sugar. The ordinary cereal foods contain somewhere about 50-75 per cent. of carbohydrates. It is difficult to conceive that a moderate reduction in the carbohydrate content has any practical value, certainly not unless the ration is accurately measured so as to prevent a compensatory appetite resulting in the patient's taking as much starch as he would in the interdicted foods. Why not administer the ordinary foods, up to the limit of tolerance, instead of allowing the patient to take more weight of a slightly reduced percentage content of carbohydræ, at several times the price of ordinary foods?

No objection can be made to allowing a variety of fodder vegetables. But we must realize that there is an appetite for carbohydrate which cannot be satisfied by any kind of deception of the palate. We may sweeten the patient's desserts and beverages with saccharin but we do not dispel the craving for real sugars—not to mention the toxic action of saccharin and the vileness of its after taste. Moreover, we must go farther than this. Acid intoxication can not be prevented unless some carbohydrate is given—somewhere about 8 grams a day, by empiric methods. Nor is the presence of sugar in the urine or in the blood essentially of dangerous import, save that in many cases sugar formation from non-carbohydrate material seems to be stimulated by even small amounts of carbohydrate ingested. Carbohydrate may be entirely eliminated for a short period, without serious damage, but speaking generally, the diabetic who will be killed by carbohydrate in moderate or small amount, down to 80 grams a day, will die anyhow. We cannot get away from the administration of carbohydrates. To paraphrase the late President Lincoln, we can fool all of the carbohydrate appetites part of the time, that is to say, we can withdraw carbohydrates for a few days, occasionally,

but it is doubtful whether we can fool any of them all of the time and, certainly, we can not fool the true, ultimate appetite for carbohydrates very long.

There is no further word to be said as to diabetic foods. Even from the standpoint of the palate, no satisfactory substitute for ordinary foods can be prepared without carbohydrates. Various kinds of crackers can be prepared from vegetable protein, casein, etc.; they can be given further variety by the incorporation of indigestible bean of different kinds, by artificial flavors; they can be rendered very agreeable to the person who samples them without need of a special food, but they cannot be prepared so as to form an adequate substitute for breadstuffs, etc. Except for the difficulty of marketing so as to insure freshness, diabetic foods can be manufactured which contain considerably less starch than ordinary cereal flours and breadstuffs. They are legitimate adjuncts to diet if honestly presented, with definite statements as to their contents. Even if sold with dishonest statements or with unwarranted generalization, they have a field of usefulness, if the medical profession is well enough informed to discount the advertisement. But, if used by a physician without discrimination or if employed by the laity directly, without caution, they are dangerous.

GENEALOGY

We started to abstract an article as to whether cancer was truly a hereditary disease, but we found in it, merely a citation of the old theory that cancer occurs with undue frequency in the residuary members of tuberculous families, that certain very incomplete statistics of two families showed an incidence of cancer somewhere near what would be expected by the Mendelian law, and some opinions. This problem as well as many others can be decided positively only by actual evidence and such evidence, except in a very limited heredity, must depend upon accurate genealogic study. It is of course impossible to obtain accurate pathologic data from the distant past, especially from ordinary family records but in regard to cancer, tuberculosis, gout and a few other diseases, some degree of reliance may be placed upon even such records. More general problems of natural fecundity, longevity, stature, etc., might be elucidated to a still greater degree. We feel that genealogy might well be taken up by some members of our own profession—Dr. Stiles's work, for example, is a model, though not conspicuously valuable from the medical standpoint—and that our profession ought to influence professional genealogists so that they may realize that there are vital interests connected with their study, of much greater value than trite eulogies, and eligibility to various organizations.

Wanted—A Bureau of Facts

Every physician's attention is called, from time to time, to the need of being able to secure, readily, information as to what is already known. A contributor, after spending much time and trouble in solving a difficult problem, published an article announcing his achievement and, while his article was being printed, wrote in haste to give credit to the prior accomplishment of the same thing in the same way. Another man published an article of comparative novelty, almost duplicating one on the same subject, published in the same journal within two years, the case being especially embarrassing because the earlier author had given credit to the later one for certain preliminary work, whereas the later one ignored the former. The very grossness of the plagiarism was the best evidence that it was entirely innocent. One of the best talking points of anti-vivisectionists is that experiments are unnecessarily duplicated. Research work of all kinds, involving expense, not merely of money but of the labor of brilliant men whose lives are all too short, is repeated several times over, because of the inaccessibility of the data of other workers. A phenomenon, rare and suggestive of the most valuable scientific results or involving tremendous humanitarian advance is passed unnoticed, simply because the observer—or rather one who might have been truly an observer—had not had his attention called to the possible existence of a condition well known to someone else. Misleading and one-sided deductions are drawn by a dozen men, each from a single experience, whereas if the whole dozen experiences could be collated, not necessarily in time, the true significance and the existence of a general principle might have been appreciated.

We have been impressed, time and again, with the difficulty of obtaining definite information on points suggested in practice, beyond the stock in trade of the ordinary text book writer, even when it would seem that the point in question was of the simplest kind. For example, it was several years after gastric analyses were fluently talked about before one could obtain definite statements of normal standards and the real significance of a given variation from the standards. We questioned for several years before we could learn whether the little bright red arterio-capillary angiomas, so commonly observed in the skin, were or were not congenital. We are not absolutely positive yet on this point, but we think that statements by physicians and patients that such spots have appeared where they did not originally exist, are more reliable than the first off-hand assurances that they are congenital. Gonorrhœa is a common disease, so common that, by the law of chance, it must not very rarely exist in a patient who is infected

with another disease of febrile nature. Yet it took considerable effort to learn what effect the second infection had on the first. Some time ago the question was raised as to whether or not in hot climates, where the atmospheric temperature was higher than that of the body, any allowance or special precautions had to be taken in clinical thermometry. How many can answer the question off-hand?

It may be said that the various cyclopædias and indexes of medical literature ought to furnish needed information on any point. But, in our experience, such a search is about like trying to find an unknown foreign word in a dictionary printed only in the same foreign language. If one knows the word or the fact, he does not need to look it up, except for certain details; if he does not know it, he does not know where to look. Even in simple matters of history it is often difficult to obtain information. For example, a few years ago, in seeking light on a case of chylous mesenteric cyst, we found every reference dating back to Rokitanski's case in 1842. Later, we found a perfectly plain case recorded in this country several years earlier and others, in foreign volumes, antedating Rokitanski's case by almost 150 years.

The only method that we can suggest for properly compiling knowledge is the establishment of living, human bureaus of information, properly correlated and rendered available by some form of index. But the details are not so easy to work out. Large endowment, wide scope, probably governmental support and international co-operation seem to be required. And there is one more factor to be considered—broad minded, generous co-operation. No mere clerical and routine indexing will solve the problem. A classic, though extreme illustration of the failure of this method is the work of a conscientious but mechanical compiler who prepared an index with the following items:

Lead, kindly light

" , poisoning.

This issue begins with page 471; the corresponding issue of 1913 began with page 437; that of 1912 with page 421; that of 1911 with page 407. In other words, with the close of the seventh issue of the current volume, the equivalent of an extra full monthly issue has been supplied to our readers. That this rate of progress may be continued, we ask co-operation in the way of securing additional subscriptions and advertisements, and especially mention of our publicity in writing to manufacturers.

BRIEF NOTES

BED BUGS. Hoosain of India recommends equal parts of spirits of turpentine and soap suds, the latter preventing too rapid evaporation of the former and making it stick to the smooth and hard backs of the bugs.

SALVARSAN OR NEOSALVARSAN has been used successfully in pernicious anæmia—but allowance should be made for the frequent long remissions of this disease.

ABSOLUTE (?) TEST OF DEATH. Icard of Marseilles advises injecting a solution of fluorescin. If there is the slightest blood current, the body becomes a vivid golden yellow, the eyes a deep emerald green. Half an hour is long enough for the test. In death, there being no circulation, the dye is not diffused. The test is harmless if life is present, as the dye is quite rapidly eliminated.

BISMUTH OXID is advised by Lion of Paris for X-ray work, on account of forming a harmless, insoluble oxy-chlorid with gastric juice.

MEMBRANOUS INTERITIS. H. Roger of Paris claims that the intestine secretes a mucus-coagulating ferment, mucinase, but that this is normally inhibited by bile. Hence, he advocates the administration of bile when there are tough membranes passed. (But, hydrobilirubin is not regularly lacking in such cases, and it is often deficient when membranes are not present. Besides, we are somewhat skeptic as to the facility with which ferments are being discovered.—Ed.)

REPEATED EXTRA-UTERINE PREGNANCY. S. Higuchi of Japan reports (*Sei-I-Kwai*, December, 1913) cases occurring in the same woman in 1906 and 1913, with recovery.

DISINFECTION OF TYPHOID STOOLS. Cover with water at 50-60 degrees C. (122-140 F.) Add a cupful of quick lime, let stand 1½ hours. The U. S. P. H. S. declares that this develops enough heat to sterilize completely.

OUR CONTEMPORARIES

Science and Mercy

The antivivisectionists have been putting out a circular in Philadelphia, with the statement that Dr. George W. Crile made

experiments on 148 dogs "in an endeavor to learn the extent of the agony that can be inflicted on a living animal." Do the kind-hearted women who are backing this movement believe that Dr. Crile did anything of the sort? When they leave out all mention of anesthesia, do they do it by accident? If not by accident, why do they do it? Surgeons until recently thought that when a patient was unconscious they could tear loose adhesions and manipulate tissues roughly without doing mischief. Crile's experiments were to determine whether this view was correct. He found that it was not; that serious injury could be caused by shock even when there was no consciousness. Realizing the difference between psychic shock, which is prevented by anesthesia, and traumatic shock, which is not prevented by anesthesia, is an important step ahead, which has already resulted in a lower death rate and a shorter time for recovery. Crile, like other men of science who are called monsters of cruelty, by these kind but ignorant sentimentalists, is the apostle of gentleness.—*Harper's Weekly*.

The foregoing, appearing in a medical journal, would not impress us particularly, as a professional journal is expected both to appreciate the value of Crile's work and to favor animal experimentation. Coming from a high class popular periodical, it will have an influence over lay judgment that no medical journal could exert.

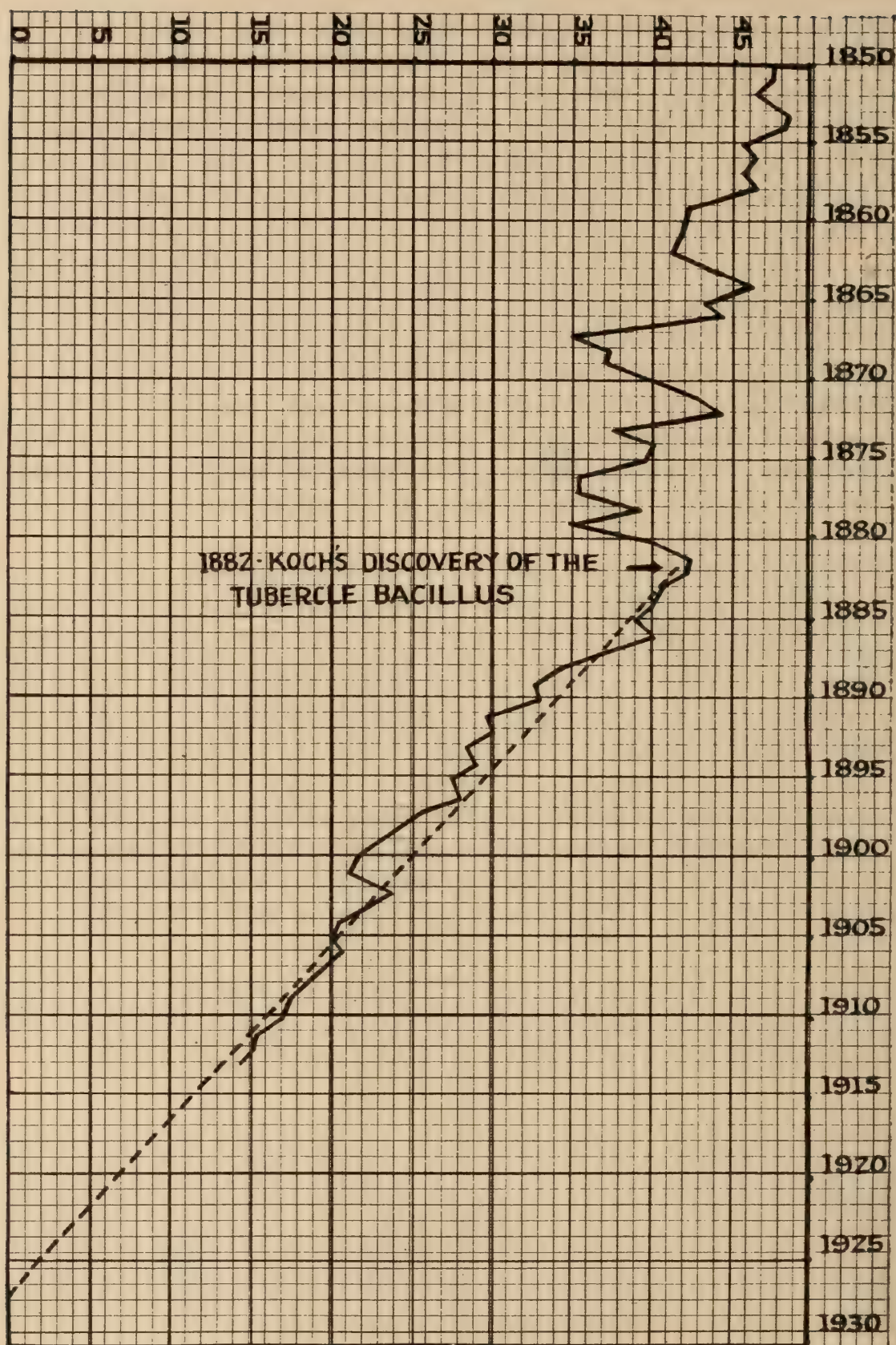
The *Medical Council*, of February, contains an interesting editorial suggesting light starvation as a cause of cancer and citing the rarity of cancer among savages, in corroboration of this theory.

Dr. Albert Vander Veer of Albany has an interesting article on the Study of Medicine, Fifty Years Ago and Today, in the *Quarterly* of the Federation of State Medical Boards.

Dr. Charles Wardell Stiles of the U. S. Public Health Service has lately written an article in which, from experience at various medical meetings, and in physicians' offices, he concludes that the principles of hygiene or even of decency, have not permeated the medical profession. The *Memphis Medical Monthly*, January, 1914, reprints his article and strenuously denies its allegations as typic of the profession.

The *International Hospital Record*, formerly a monthly, for the last seven months, a weekly, will in the future appear semi-monthly. The editor candidly states that the labor of issuing every week is too great.

TOPICS OF PUBLIC INTEREST.



BOSTON TUBERCULAR CURVE

Broken line indicates the number of deaths per 10,000 of population from Pulmonary Tuberculosis (Consumption).

Dotted line indicates the rate of decrease since 1882 continuing into the future.

[Cut loaned by the Boston Association for the Relief and Control of Tuberculosis to the Boston M. and S. Journal and to us.]

ANOTHER CANCER GERM. A spirillum has been claimed by a Belgian as the cause of cancer. When taken from the intestine of the rat, fed to insects and these eaten by other rats, malignancy develops. This, in connection with various other observations, suggests that cancer in certain laboratory animals may be an entirely different disease than that of human beings.

APPOINTMENTS. Carl Voegtlin has been appointed Professor of Pharmacology in the Hygienic Laboratory of the U. S. Public Health Service, to succeed Reid Hunt, now head of that department in Harvard.

30,000 IDIOTS AND FEEBLE MINDED in New York State, institutional accommodation for 4,000—Board of Charities report.

COCAINE RULING. The Attorney General of New York State holds that a physician, unless he acts as a dispenser in the sense of a druggist, is not required to furnish a certificate giving name and address of patient, seller of drug, his own name and address and date and amount of drug. He must, however, keep a book record of all cocaines disposed of by him.

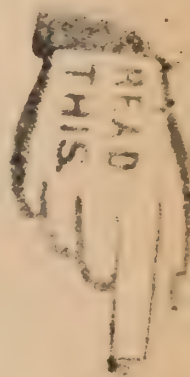
VIRULENT VACCINIA following vaccination soon after anti-typhoid vaccination, has been experienced by Prof. and Mrs. Wm. R. Shepard of Columbia.

THE NATIONAL ASSOCIATION FOR THE STUDY AND PREVENTION OF TUBERCULOSIS has adopted as its emblem a double red cross with all arms pointed.

ALVARENGA PRIZE. The next award of about \$180 will be made July 14, typewritten essays, accompanied by sealed envelope containing name and address, corresponding to moot on Mss., must be in hands of Dr. Thomas R. Neilson, Secretary of College of Physicians and Surgeons, 19 S. 22, Philadelphia, by May 1.

BEQUEST TO MEDICAL SOCIETY. The St. Louis Medical Society has received a legacy of nearly \$50,000. We trust the precedent may be followed in our territory. Aside from the fact that medical societies are, generally speaking, worthy institutions, the endowment of the profession as a whole in any region would give it an influence over various ethical and economic problems that would be most wholesome.

STREET ACCIDENTS. In New York City, automobiles killed 302 (149 children) in 1913; 221 (134 children) in 1912. Street



cars killed 108 in 1913; 134 in 1912. Wagons killed 132 in 1913; 177 in 1912. In the State, outside New York City, the figures were, respectively, 150 and 127; 79 and 79; 32 and 28. The great increase in automobiles—there were 133,500 in the State in 1913—explains the growing list of automobile deaths and the diminution in the others. In Chicago, there were 3,589 fewer horses in 1913 than in 1912; 4,239 more automobiles and 612 more motor cycles. One moral is to keep children off the streets, another for adults to realize that the streets, between the curbs are no place for meditation. Probably a practical hint could be drawn if accurate statistics could be had of the number of deaths from automobiles driven by their owners and from those driven by chauffeurs, including taxicab drivers.

MISTAKE IN MEDICINE. A nurse in the Utica Orphan Asylum gave medicine from the wrong bottle to six children on January 25, two dying as a result. Beside the obvious moral, it is rather too systematic to dose six patients from the same bottle, in one day.

RADIUM APPROPRIATION. A bill has been introduced to buy \$100,000 worth of radium for the New York State Institute for the Study of Malignant Disease. This is an excellent proposition. Radium is too expensive for most practitioners to carry in stock, and there is danger that, if purchased by private and semi-private institutions or combinations of physicians, it would be exploited for private ends. An adequate supply, bought by public money, and held in trust by a public institution, guarantees its use without this danger.

LENGTHENING OF COURSE. Vanderbilt University, Tennessee, has extended its term to nine months, having been endowed from the Carnegie fund.

FISKE PRIZE ESSAY. The annual prize of \$200 will be awarded to the best essayist on Causes, Symptoms and Early Recognition of Carcinoma Uteri. Essays must be submitted by May 1. For information, apply to Dr. Halsey DeWolf, 212 Benefed St., Providence (not Boston).

THE ROCHESTER GENERAL (FORMERLY CITY) HOSPITAL celebrated its semi-centennial January 28.

X-RAY TREATMENT OF MALIGNANT DISEASE. This is not so recent as some writers have implied. Arthur F. Holding, *Am. Jour. of Roentgenology*, December, 1913, collated 3,134 cases thus treated from 1896 to 1909.

CANVASS OF "PRACTITIONERS." A committee of the Medical Society of the County of Erie, Dr. Grover W. Wende, Chairman, has issued a circular letter to its members requesting a report of all practitioners, by districts. The following method of classification is suggested: Care should, of course, be taken not to imply encroachment on medical practice by dentists, hospitals, nurses, druggists, barbers, etc., in good standing.

GROUP I.

PHYSICIANS AND SURGEONS HAVING THE DEGREE OF "M. D." AND LICENSED TO PRACTICE MEDICINE BY THE STATE OF NEW YORK.

Regular School.	Eclectic School.
Homeopathic School.	

GROUP II.

INDIVIDUALS HOLDING A LICENSE OF SOME KIND FROM THE STATE OF NEW YORK.

Dentistry.	Barber.
Osteopathy.	Optometry (Optician).
Pharmacy and Druggist.	Chiropody.
Registered Nurse.	

INDIVIDUALS, CORPORATIONS, ETC., DOING BUSINESS WITH OFFICES.

Hospital.	Cheiro-therapy.
Dispensary.	Mechano-therapy.
Institute (Sanitarium).	Hydropathy (Baths).
Patent Medicine.	Electric Baths (Magnetic Healer).
Correspondence Concerns.	Massage (Rubbing).
Manicure.	Botanic Healer.
Beauty (Skin) Doctor.	Cancer Cures.
Hair Dresser.	Advertising Quack.
Deformity Appliances.	Bone Setter.
Chiropractic.	

RELIGIOUS METHODS.

Christian Science Healer.	Emanualist.
Spiritualist.	New Thought.
Clairvoyant.	Faith Healer.
Fortune Teller.	Fetish Worship.
Voodoo.	Oriental.
Witchcraft (Charms).	Metaphysician.

COL. WM. C. GORGAS, M. D., has been appointed Surgeon-General U. S. A. This appointment should give universal satisfaction, as Col. Gorgas was in line for promotion by seniority and there can be no question as to his availability by those who claim that merit rather than seniority should be considered.

SUICIDE PREVENTION. The Chicago Salvation Army claims to have prevented 100 suicides in a year by its ministrations. Suicide, except in insanity and in instances in which the victim feels—rightly or wrongly need not be discussed here—that his removal from society is a public benefit, can almost always be prevented by human sympathy and help. Here we have an illustration of sentiment as a prophylactic factor, ranking in importance, so far as the death rate is concerned, with many highly scientific methods. Our own profession has almost the highest suicide rate of any occupation, except some that imply being “down and out.”

DENTAL DISPENSARIES FOR BUFFALO. The Board of Aldermen have passed a resolution establishing a central and two branch dispensaries. Through the generous offer of the Dental Department of the University of Buffalo the central dispensary will be equipped, housed and manned without cost to the city, so that it is estimated that this will cost only \$1,000 a year, whereas the two branches, which are expected to do about half the total work, will cost about \$2,500 apiece. This is a splendid charity, but it should be strictly limited to deserving cases and should not be allowed to pauperize those able to pay for services.

EXCULPATION OF THE MAYOS. On page 356 et seq. of the January issue, we alluded to a criticism of the Mayos and stated “We are inclined to believe that the Mayos are in no way responsible for the postal card to which our contemporary takes exception” (a notice of trains leaving Chicago for Rochester, Minn., in time for clinics), “but that it is due to the enterprise of the passenger agent.” We have received a file of copies of telegrams and correspondence fully supporting our judgment in the matter. This file also covers other matters of the same nature and shows that, so far from maintaining a publicity bureau, the Mayos have a definite system of preventing undue publicity. This file may be consulted at our office by anyone interested.

CLINICAL COURSE AT THE HOTEL DIEU, PARIS. “Recent Notions on Maladies of the Pancreas and Spleen” will be presented by various lecturers at both morning and afternoon sessions,

April 6-18. The fee is 100 francs. Having taken a similar course on another subject, coprology, and having enjoyed, by courtesy, other opportunities for study at this institution, we strongly advise physicians expecting to take a European trip at this time, to include this course in their program. Application should be made to M. Deval, Chef de Laboratoire, Hotel Dieu, Paris.

AMERICAN SOCIETY FOR PHYSICIANS' STUDY TRAVELS. The first annual tour is scheduled to leave Atlantic City June 26, to visit various cities in the States and Canada and to end at Philadelphia, July 16. The party will be in Buffalo from the evening of June 29 to the morning of July 1, and will leave Niagara Falls early in the afternoon of July 2. First-class service is given throughout for a fee of \$180. As travel is considerably more expensive here than in Europe, this is a very reasonable sum. Applications should be made to Dr. Albert Bernheim, 1225 Spruce street.

ACTING DENTAL SURGEONS. Twenty-eight vacancies now exist in the U. S. Army. Examinations will be held Monday, April 13, at several places. The pay is \$150 per month, with perquisites. Appointments are for three years with promotion to the rank of Dental Surgeon, 1st Lt., at the end of that period, if qualified. Application should be made to the Surgeon-General at least two weeks before the examination.

EXAMINATION OF CANDIDATES FOR ASSISTANT SURGEON—United States Public Health Service. A board of commissioned medical officers will be convened to meet at the Bureau of Public Health Service, 3 B street, S. E., Washington, D. C., on Monday, March 9, 1914, at 10 o'clock A. M., for the purpose of examining candidates for admission to the grade of assistant surgeon in the Public Health Service. Examinations will be scheduled to be held at other stations of the Service at a later date.

After four years' service, assistant surgeons are entitled to examination for promotion to the grade of passed assistant surgeon.

Assistant surgeons receive \$2,000, passed assistant surgeons \$2,400, surgeons \$3,000, senior surgeons \$3,500, and assistant surgeon generals \$4,000 a year. When quarters are not provided, commutation at the rate of \$30, \$40 and \$50 a month, according to the grade, is allowed.

All grades receive longevity pay, 10 per cent. in addition to the regular salary for every five years' service up to 40 per cent. after twenty years' service.

The tenure of office is permanent. Officers traveling under orders are allowed actual expenses.

For invitation to appear before the board of examiners, address "Surgeon General, Public Health Service, Washington, D. C."

The Bill to Restrict the Use of the Term Nurse.

The essential point of criticism in this bill is that by forbidding any but a registered, hospital graduate to call herself a nurse, it is virtually legislation against the dictionary. The word *nurse* as a general designation for anyone caring for a child or sick or injured person is practically as old as the English language, in fact some centuries older than English understandable by one who speaks that language today. An equivalent word occurs in most languages, ancient as well as modern, having the same general sense, so that it may fairly be stated that the word *nurse*, as a general designation, dates back to the dawn of civilization.

It is difficult to state just when the conception of the *trained nurse* originated. It is commonly dated back to the experience of the Crimean War, but, on the one hand, some degree of formal training of nurses, especially in sisterhoods, antedated this War by several centuries and, on the other hand, the *trained nurse* in the present sense, as a generally available aid to the physician and surgeon and as representative of a definite profession, did not arise till the seventies and eighties of the last century.

Sufficient time has elapsed, however, to produce a large, influential and capable body of active and retired trained nurses. The general requirements for the education, registration and legal control of this profession can now be best formulated by this profession for itself.

Objection to the bill in its present form is not an indication of prejudice for the untrained nurse, but fear that it will react to the detriment of the trained nurse. We doubt very much whether any court will rule that it is a legal offense to use a word in its accepted and long established sense. We feel very certain that no court will punish, to any sensible degree, anyone who calls herself a nurse, unless it can be clearly shown that she practiced deliberate deception by qualifying the word with such an adjective as "trained" or "hospital" or "registered." And we feel equally certain that any organized attempt to enforce the law will simply strengthen the opposition to the trained nurse. The contention that the laity do not understand the difference between a trained and an untrained nurse can scarcely be upheld.

Why not accept conditions as they exist, recognize that the trained nurse is alone susceptible of professional organization

and development, and seek such legislative control of the noble profession of trained nurses, as their own experience dictates, letting the dictionary and the practical nurse alone?

A New Abortion Bill

A bill has been introduced in the St. Louis Municipal Assembly. Any woman who shall, with intent to produce or promote her miscarriage or abortion, solicit any physician to administer to her any drug or substance whatsoever, or to use or employ any instrument or other means whatsoever, with intent thereby to procure her abortion or miscarriage, unless the same shall have been necessary to preserve her life, or shall have been advised by a physician to be necessary for that purpose, shall be guilty of a misdemeanor, and upon conviction shall be fined not less than twenty-five dollars nor more than two hundred and fifty dollars for each offense.

One of the most difficult problems in the control of abortion is that the principle of privileged communications shields the woman. She is nominally subject to severe punishment, so severe, indeed, that there is a natural hesitation toward enforcing it. Thus it usually happens that evidence of the crime is available only after she is dead. We believe that this legislation will accomplish practical results—not that it will entirely prevent abortion.

ADULTERATION AND MISBRANDING PUNISHED. The Dept of Agriculture reports recent convictions for selling dilute hydrochloric acid which did not come up to the standard; oil of bitter almonds deficient in hydrocyanic acid and containing chlorinated products; oil of cassia containing rosin and lead; oil of anise not conforming to the pharmacopœial standards.

TEMPORARY SANITARY SUPERVISORS have been appointed by Dr. Herman M. Biggs, State Commissioner of Health, at salaries of \$4,000, as follows: Dr. Charles Duryee, Schenectady; Dr. Charles S. Prest, Waterford; Dr. John J. Mahoney, Jamestown; Dr. Frank S. Swan, Corning; Dr. T. Wood Clarke, Utica, and Dr. Otto R. Eichel, Buffalo.

AUTOMOBILE FRACTURES. The *Motor* states that over 2,200 fractures of the fore-arm occurred in 1913 from cranking. When one considers the vast amount of power generated by an automobile, the fact that a simple, inexpensive and reliable method of starting by pressure of a button, is a disgrace to our inventive genius. But, at least, one may avoid the inconvenience of exert-

ing muscular power at a disadvantage and in the mud, and the danger of fracture, by a comparatively cheap and simple mechanic appliance.

UNION OF SOCIETIES. A movement is on foot to unite all of the general city and county societies of Rochester and Monroe Counties under one roof. This plan has been carried out in several cities to good advantage and involves economy, both of money, time and results.

PORNOGRAPHY IN BUFFALO. Recent accusations against Buffalo men and women whose lives were devoted to religious work, seem not even to have had the excuse of attempted blackmail nor, originally, to have indicated the anti-religious basis which they developed nor to have arisen as a part of that feud which narrow minds seem to consider inseparable from any religious, political or racial affiliation, unless in an individual sense. Even careful legal inquiry has, up to date, failed to show a spark of truth from which the shower of smut has started. But the episode has led to an exhibition of filthy art treasures—treasured because of their filthiness and included under the head of art with due apology—and, apparently, to the development of the keen commercial instinct which leads to the sale of memorial buttons when a President is killed as well as to the sale of all sorts of silly reminders of a great variety of events. We can make allowances for an occasional indulgence in onions, Limburger cheese and a passing, oral indecency, but we fail to comprehend the psychology of an endeavor to perpetuate such atmospheres. Some time ago a facetious friend laid on our desk an illustration of pornography which, it must be confessed, did have some humor beside the kind which is due to mere incongruity, and which, therefore, is supposed to attach to anything indecent. After his departure, we started to throw it into the waste basket, but recollected that that was not an ultimate disposition of satisfactory nature. An attempt to burn it revealed the fact that, with more care than is usually bestowed on art and literature of a higher kind, it was indelibly stamped on some silicious material, quite appropriate to its salacious nature. As mental excrement, the water closet was an appropriate place, but we did not wish to clog the drain, especially with such incriminating testimony. The thing was hidden in a drawer and forgotten, except occasionally at night and in times of peril, when it was vividly remembered as something which surviving relatives would find as evidence of a side of our nature which we had carefully striven to conceal, even from ourself. It narrowly escaped production with other papers and articles of unobjec-

tionable nature, before eyes that would have embarrassed us. Finally, after one of these narrow escapes, we devoted an hour's time with file and cutting forceps, to its destruction, and have breathed more freely since. Poronography is, most emphatically, not a survival from a state of savagery, nor can its rudiments be found in the lower animals, unless possibly in monkeys. It is a curious development of human psychology which seems to be synchronous with the development of æsthetics and morality—quite antagonistic characteristics. It does not even seem to be associated with sexual immorality in the ordinary physical form, unless quite accidentally, exceptions being as frequent as apparent indications of such association.

UNIVERSITY DAY. The University of Buffalo held its annual exercises at the Teck Theater, February 23. Dr. Charles William Dabney, president of the University of Cincinnati, delivered an address on the Municipal University.

IOLA SANATORIUM has issued its report for 1913, dedicated to the President of the Board of Managers, Dr. John F. W. Whitbeck. The Superintendent, Dr. Montgomery E. Leary, is to be congratulated on the excellent results obtained. This institution was established as a county hospital in 1910, and is located in Brighton, half a mile from the Rochester city line. The ground comprises twenty-five acres, consisting in part of a vegetable garden and hennery, which not only give wholesome employment to the patients but reduce the expense of maintenance. There are at present seven buildings, including power plant, etc. The supervisors have appropriated \$75,000 to provide for enlargement of existing and erection of new buildings. X-Ray, pathologic and biologic laboratories will be included in the new equipment. 381 patients were treated in 1913, the accommodations being for 145 at a time. The capacity will be increased by 100, special attention being given to the needs of children. Only four times last year were there vacancies in the accommodations available. The per capita cost, per diem, was 2,095, the lowest of any comparable institution in the country.

BUFFALO ELECTRIC SHOW will be held during the week of March 9, in Elmwood Music Hall. The central attraction will be an electric fountain 24 feet high and 20 feet in diameter—one of the largest ever erected—representing a volcanic crater, emitting a vapor which will be illuminated in various colors by searchlights beneath the floor, the top of the fountain being protected by a dome which will prevent the action of cross lights or the escape of rays from the searchlights. This arrangement

represents an engineering triumph in the practical application of a study of angles of incidence, reflection and refraction. W. D'Arcy Ryan, Electric Engineer of the Panama-Pacific Exposition is the consulting engineer. The show is under the management of the Jovian League, and will be the most interesting and the largest show ever held outside of New York and Chicago. Every conceivable use of electricity will be exhibited, including its application to farming and housekeeping and certain developments of Wireless Conduction. The Thorarson Electric Manufacturing Co. of Chicago will show some developments of high tension wireless apparatus, as the cooking of food within a block of ice. The Robertson-Cataract Co. of Buffalo will have an interesting exhibit.

THE ERIE COUNTY HOSPITAL graduated a class of fourteen nurses February 20.

NEW CITY EMPLOYEES FOR BUFFALO. The councilmen have amended the action of the aldermen by reducing the number of additional tuberculosis nurses to two instead of four. Otherwise they concur in the resolution for the appointment of two dental inspectors, two dentists, two assistants, two diagnosticians and eight clerks for the Health Department. A dancing hall inspector at \$1,500 is also to be appointed. We trust that his duties will be held to include conferring some token of appreciation upon the two or three indecently dressed ladies who are usually in evidence at social functions. If they were always the same persons, the problem would be simpler.

SOCIETY MEETINGS.

Brief reports and announcements of meetings of societies of Western New York and those of general scope are requested from Secretaries. Copy should be on hand the fifteenth of each month. Full transactions will be published at cost of composition.

THE ROCHESTER ACADEMY OF MEDICINE, Section 2, Surgery and Surgical Specialties, met at the Academy rooms, February 11. Dr. Lee Masten Francis of Buffalo spoke on "Sclero-Corneal Trephining," according to the method of Col. Elliott in the Operative Treatment of Glaucoma. A subscription dinner was tendered to Dr. Francis at the Rochester Club before the meeting.

THE ELMIRA ACADEMY OF MEDICINE met February 11. Dr. W. A. DeWitt of Blossburg, Pa., gave a paper on "Artificial Pneumothorax," and Dr. F. W. Ross "Reminiscences of Thirty Years of Practice in Elmira."

THE BUFFALO ACADEMY OF MEDICINE has held the following meetings: Pathology, January 27; Problems in Renal Pathology, Dr. George Baehr of Mt. Sinai Hospital, New York.

Surgery, February 3. Original Surgical Uses of the Bone and Cartilage Craft—a report of 230 cases, illustrated by lantern; Dr. Fred H. Albee, F. G. Hospital, New York. Discussion opened by Drs. Park, Bartow and Le Breton.

Medicine, February 10. The Heart in Some Infections, Dr. A. E. Woehnert; The Modern Conception of Gastric Neuroses, Dr. A. A. Jones.

On February 17 the program announced by the section of Obstetrics and Gynæcology was suspended by a special meeting of the entire academy, in memory of Dr. Roswell Park. Captain Harry R. Trick, President, opened the meeting with appropriate general remarks and addresses were made as follows: Dr. Thomas H. McKee, Dr. Park as a Teacher; Dr. Herman G. Matzinger, Dr. Park as an Author; Dr. Charles G. Stockton, the Personality of the Man; Dr. Edgar R. McGuire, Dr. Park's Influence on Surgery. Dr. Charles Cary, as chairman of a committee including Drs. Stockton, Edgar R. McGuire, Gaylord and Wende, presented resolutions which were adopted, ordered spread on the minutes and sent in duplicate to Dr. Park's family.

THE BUFFALO MEDICAL AND SURGICAL LEAGUE had for its scientific program at the February meeting a paper entitled: "Gonorrhea," by Dr. Charles Bethune.

THE GROSS MEDICAL CLUB of Buffalo held its annual meeting and banquet at the Hotel Statler, Friday afternoon and evening, February 19th. The election of officers resulted: Drs. A. G. Bennett, President; W. Warren Britt of Tonawanda, Vice-President; Chester C. Cott, Secretary. Dr. Bennett appointed the following committee on membership and to arrange the schedule for the coming year: Drs. Jas. E. King, J. Henry Dowd and Albert E. Perry. Dr. Geo. F. Cott gave a most enjoyable talk on his recent trip through Egypt, illustrating it with stereopticon views. The following cases were reported and freely discussed: Dr. Tyler, a boy eight or nine years old, ill with grip. Suddenly his temperature rose to 105, the next day it was normal but the next 104. Following this on the second day he was seized with a severe earache and four days later the right elbow joint became very painful, tender and swollen. This was aspirated a few days later and a large amount of pus found; the joint was irrigated with Tiersh solution. Was the joint condition due to the otitis? The ear is still discharging.

Dr. Jas. McLeod, a man aged 61, erysipelas of the scrotum, microscopic examination showed it to be streptococcus infection. To our great surprise the scrotum commenced sloughing, and soon the testes were entirely free of all covering. As soon as sloughing had ceased a new scrotum was formed by taking a flap from the right thigh. Except at one or two spots where there was a small amount of sloughing, healing took place by first intention and the patient has a fairly normal scrotum. These cases are very rare, the late Dr. Park having seen but three during his years of practice.

Dr. Dowd, a man aged 46, sent a sample of urine for examination with no history save that he was urinating frequently, no pain but loss of flesh and becoming very weak. Urinary examination showed Sp. G. 1008, large amount of albumin and pus, several hyaline casts, no sugar, bile, blood or spermatozoa, Phosphatic Index 90 per cent. minus, no evidence of tuberculosis but marked bacteriuria. Very little information being at hand to form an opinion Comp. Phos. Tonic was ordered in half teaspoonful doses three times a day half an hour after food. In about five weeks the man came to Buffalo and reported he had gained about twenty-two pounds, felt perfectly well but could not pass his urine for the past two weeks, excepting in the recumbent position. Examination of the urine at this time showed no albumin, only a few pus cells, no casts, an occasional uric acid crystal, P. I. now 15 per cent. minus. Further examination revealed prostate and vesicles normal, no stricture, organic in nature, but there was a markedly spasmodic contraction of the deep urethral muscles when the searcher approached that region. The sound quickly detected a stone and arrangements were made for an operation. Before leaving the office the man was requested to pass the water used for the examination, and to the surprise of both passed a stone (uric acid) as large as a kidney bean, over three-quarters of an inch long and three-quarters of an inch in circumference.

Dr. McKenney, a child aged eight months was suddenly seized with abdominal pain accompanied by marked shock. Careful examination revealed a possible intussusception, and, as the symptoms seemed to increase, operation was advised at once. The abdomen being opened it was found that the ilio-caecal valve, appendix and beginning of the ascending colon had telescoped into the ascending and transverse colon as far as the splenic flexure. A resection was done, removing at least six inches of intestine.

THE MEDICAL SOCIETY OF THE COUNTY OF ERIE held its regular meeting in the University of Buffalo on Monday, February 16th, 1914, with President John V. Woodruff in the chair.

The President announced the death of Dr. Roswell Park, which had occurred suddenly on February 15th, 1914, and resolutions of respect, moved by Dr. A. T. Lytle, were duly adopted by a unanimous rising vote.

The Secretary then read the minutes of the previous meeting and also of the council meetings, all of which were duly approved.

Dr. Grover W. Wende, Chairman of the Committee on Membership, then presented the applications of seventy-four candidates, each of whom was separately voted upon and admitted to membership.

At the conclusion of the election of so many new members, Dr. A. G. Bennett rose and stated that this was the first time in the history of the society that such a large number of new members had been elected at one time; that Dr. Wende had established a record, and that this is all the more important when we consider that, during the past five years, he had been instrumental in getting over 250 new members into the society, and especially when it is considered that practically every eligible practitioner within the county has, by this time, been elected to membership. He laid special stress also upon the revenue derived from such an additional membership, and concluded by saying that Dr. Wende was the logical candidate of this society for the office of President of the Medical Society of the State of New York. He, therefore, moved that it be the sense of this society that Dr. Grover W. Wende be its candidate for President of the Medical Society of the State of New York at the next annual meeting.

Dr. T. H. McKee seconded this motion with eulogistic remarks. Motion was unanimously carried.

Dr. Julius Richter moved the following resolution:

"Resolved, That the Delegates from this Society be instructed to vote as a unit for the election of Dr. Grover W. Wende for President of the Medical Society of the State of New York."

Resolution was unanimously adopted.

Dr. Bennett moved that the Medical Society of the State of New York be invited to hold its 1915 meeting in Buffalo. Carried.

Dr. Lytle moved that a letter be sent to the delegates from the various County Societies to the State Society endorsing Dr. Wende's candidacy and including an invitation to hold the next meeting in Buffalo. Carried.

Dr. Bonnar moved that a vote of thanks be given to Dr. Wende for his excellent work as Chairman of the Committee on Membership. Carried.

Dr. A. L. Benedict, from the Committee on Necrology, reported to the Society the following deaths up to February 1, the obituaries being printed in the BUFFALO MEDICAL JOURNAL:

Hiram Dana Walker, University of Buffalo, 1864, died at Buffalo, February 21, 1913, aged 73 years.

Norman K. MacLeod, University of Toronto, 1903, died at Buffalo, April 3, 1913, aged 34 years.

Bernard F. Dennis, University of Buffalo, 1899, died at Oil City, Pa., July 31, 1913, aged 36 years.

Frederick C. Busch, University of Buffalo, 1897, died at Buffalo, January 3, 1914, aged 39 years.

This concluded the business session, after which Captain George H. Norton, Deputy Engineering Commissioner, Department of Public Works, gave a very interesting paper on "The Water Supply and Sewerage of Buffalo and the Public Health." The paper was thoroughly discussed by many members present, and at its conclusion a collation was served.

FRANKLIN C. GRAM, M. D.,
Secretary.

PERSONALS

Announcement of removal, travel, and other matters of interest are requested. Please report errors in the listing of any physician in the State and other directories that we may co-operate with the State Society in securing a correct list.

Dr. A. L. Benedict would greatly appreciate information of sites of prehistoric Indian villages, discoveries of Indian graves, etc., in western New York.

Dr. Wm. H. Billings of Buffalo has recovered from an illness and is again attending to his practice.

Dr. Stephen Yates Howell of Buffalo, who returned from a trip around the world this winter, has located his office and residence at 501 Delaware avenue.

Dr. Edward H. Mehl has returned after having spent a year and a half in Europe. He was met in New York by his brother, Dr. Wm. H. Mehl.

Major Wm. H. Bissell, M. D., of Buffalo, recently retired after twenty-five years' surgical service in the 74th Regiment,

N. G. N. Y., has been honored by an unsolicited commission in the U. S. Medical Reserve Corps.

Dr. B. F. Senftenberg of New York has moved to 127 W. 82d street.

Dr. Joseph A. Gregory of Buffalo was married to Miss Susan Marie Elliott, February 17.

Drs. Roswell Park, Lucien Howe and Joseph Burke were recently appointed to the hospital committee of the Buffalo Chamber of Commerce.

Dr. Paul Sandreski of Buffalo had his automobile struck by an Erie switch engine at the Arthur street crossing of Tonawanda street, Buffalo, February 18. The automobile was wrecked. Dr. Sandreski was badly cut in the face and hands by glass from the wind shield.

OBITUARIES.

Readers are requested to report promptly the death of all physicians in Western New York, or former residents of this region, or graduates of any medical school in Western New York and to notify the families of the deceased of our desire to publish adequate obituary notices.

Roswell Park

Roswell Park was born May 4, 1852, at Pomfret, Conn., the son of Rev. Roswell Park and Mary Baldwin Park, both of whom were descended from English ancestors who came to America on the Mayflower. His father—the author of several well known hymns—founded Racine College, Wisconsin, and there the son received his baccalaureate degree in 1872, and subsequently the master's degree. In 1876 he was graduated from Rush Medical College in Chicago. In 1880 he married Martha Durkee of Chicago, who died in Buffalo in 1899. Two sons were born of this union, Roswell, Jr., now engaged in business in Buffalo, and Julian, of the faculty of the recently established Arts and Science Course of the University of Buffalo. His sister also survives him.

Dr. Park's professional career may be epitomized as follows:
1877-79—Demonstrator of Anatomy, Women's Medical College, Chicago.

1879-82—Adjunct Prof. of Anatomy, Chicago Medical College.

1883—Called to Buffalo as Prof. of Surgery, University of Buffalo.

1884-93—Surgeon, Fourth Brigade, N. G. N. Y.

Possessed of a logical intellect and a clear and delightful literary style, Dr. Park was well known as an author, his authorship being of that highest type inspired by definite knowledge and the possession of a useful message. Thus, even when the subject was not a technical one and the title might suggest an academic standpoint, his writings always showed a strong prac-



DR. PARK, 1890

tical trend. This fact is well illustrated in the sole posthumous paper (excepting a few accepted for publication before his death) which is published in the present issue of this journal. His bibliographic record is appended, save for some minor contributions to periodic literature and his editorial work in connection with *The Medical Press of Western New York*, published from January, 1886, to June, 1889, when it was incorporated with the *BUFFALO MEDICAL JOURNAL*.

Dr. Park has been spoken of as a many-sided man, and he sometimes used to refer to himself in jest as a general specialist. Perhaps it would be more correct to say that he showed one concentrated mental proclivity, to base his work on the bedrock of fact, to build broadly and strongly, and that such an intellectual edifice could not but serve many useful purposes. Thus, while a skillful and—for post-anæsthetic days—a rapid operator, he was a surgeon in the broader sense, rather than surgeon in the original meaning of the term. He was one of a comparatively

few surgeons who did not use knife-blade sights in aiming at a case. For this reason, when he did decide upon operation, his own confidence and that of his associates was greater, and his



DR. PARK, 1901

Courtesy of Buffalo Express

attack definite and decisive. While his early experience as a teacher of anatomy was of great value to him as an operator, his research work along lines of pathology and bacteriology, his theoretical and practical grasp of the principles of antiseptic and,

subsequently of aseptic surgery, at an early date in their development, were of equal value from the standpoint of technic, they characterized his teaching and authorship and prepared him for future tasks of even greater importance. It was concentration of energy rather than versatility in the ordinary sense that made him a useful member of the Buffalo Society of Natural Sciences and of various other scientific organizations in Chicago and Buffalo, that led the American Association for the



DR. PARK, 1909

Advancement of Science to elect him to the presidency. His early studies logically led to a conception of the necessity of a serious study of cancer and made him the prime mover in the establishment of the New York State Institute for the Study of Malignant Disease. The same logical extension of interests may be seen in his early and persistent studies of radiant energies, although he never posed as a physicist or chemist or devoted himself technically to Roentgenology. His paper published in this issue not only illustrates this interest but exemplifies his grasp of general principles and power to assemble facts, as well as

his constant effort toward securing practical humanitarian results from what might appear to the superficial observer as mere scientific abstractions.

Like most other men who have achieved greatness, Dr. Park was a man, a gentleman, a good citizen and a good friend and not merely a highly efficient mental machine. Hence, we find him identified with and honored by various organizations apart from the local and general professional organizations, membership in which may be taken for granted and in which he naturally played a prominent part. He had been president of the Buffalo, Saturn and University Clubs of Buffalo; he was a life member of the Buffalo Fine Arts Academy and of the Buffalo Historical Society; a member of the Park Club of Buffalo, of the University Club of New York, of the Army and Navy Club of Washington. Membership in the last may be considered a professional affiliation, since he was a first lieutenant in the U. S. Medical Reserve Corps and a non-resident professor in the Army Medical School. He was an amateur musician and composer of no mean ability, and exerted a strong influence in the development of musical culture in Buffalo, although too much occupied with other matters to have made this side of his life prominent or even to have made it known to many of his professional associates. Logical incidents in his life, rather than significant landmarks, are the reception of an honorary degree of M. D. from Lake Forest University, of an honorary degree of A. M. from Harvard and of the degree of LL. D. from Yale.

As a teacher, didactic and clinical and, to some degree as a popular lecturer, Dr. Park was clear, interesting and practical. Beginning his career as a medical teacher in the days when medical colleges were still in the evolutionary stage typified by the "little red school house," he was not content merely to fulfill routine duties conscientiously but as one of the most persistent workers toward securing a curriculum, equipment and system of pædago^y in medicine, consistent with the highest standards of education in general. In this respect his influence was more than local. Called to the professorship of surgery in Rush Medical College in 1890, his decision to remain in Buffalo led the profession to tender him a banquet in appreciation of his loyalties to ties so firmly established. This invitation had more than a personal significance. In fact, every personal honor that Dr. Park received was reflected in an altruistic way. The recognition of Dr. Park's attainments came at a time when professional sentiment and legislation were demanding greater things of medical education. The signal honor conferred upon him emphasized to the profession and the public the fundamental worth and the present needs of the University of Buffalo; it gave an additional

impetus to the forces already at work within the institution and added to their influence upon the community and, unquestionably, hastened the concrete attainment of means to accomplish the educational ends so long desired.

In 1908, a similar banquet was tendered to Dr. Park, commemorating the completion of a quarter of a century as professor in the University. Dr. Park's attachment to the University of Buffalo was such that it is no coincidence that its welfare was on his mind and the subject of conversation on the evening before his death. His large private medical library is bequeathed to the University of Buffalo and his instruments to the Buffalo General Hospital.

At three o'clock in the morning of Sunday, February 15, Dr. Park was seized with an attack of syncope and died within a few minutes. The funeral was held at Trinity Church, February 17, being attended by representatives of the Council, Faculties and Alumni of the University of Buffalo, of the Buffalo Academy of Medicine and the Medical Society of the County of Erie and of out-of-town organizations, of the Buffalo, Saturn and University Clubs, of the Sons of the Revolution and of various other institutions with which Dr. Park was connected.

Titles of Papers, Addresses, Etc., Published by Dr. Roswell Park Between 1881 and 1914.

Besides the 155 titles included in this list there are some 25 published clinical lectures, with numerous articles in Johnson's Cyclopædia and Editorial articles in the *Annals of Surgery*, the *Weekly Medical Review*, the *Medical Press of Western New York*, the *Atlantic Medical Weekly*, and minor contributions in various journals.

1881.

1. On the Surgical Anatomy of the Sheaths of the Palmar Tendons. *Annals of Anatomy and Surgery*. August, 1881.

1882.

2. A Case of Severe Injury to the Orbit. *Archives of Ophthalmology*. March, 1882.

3. On a New Method of Making Anatomical Preparations. *Annals of Anatomy and Surgery*. March, 1882.

4. The Present Status of Antiseptic Surgery. *Chicago Medical Journal and Examiner*. October, 1882.

1883.

5. Secondary Batteries and the Storage of Electricity. *Chicago Medical Journal and Examiner*. February, 1883.

6. The Electric Light in Diagnosis. *Annals of Anatomy and Surgery*. March, 1883.

7. Primary Antiseptic Occlusion of Gun-shot Wounds. Edit. in *Annals of Anatomy and Surgery*.

8. Record of Principal Anatomical Anomalies noticed during the Dissection of 100 Subjects. *Annals of Anatomy and Surgery*. December, 1883.

1884.

9. Tuberculosis of Bones and Joints; Treatment by Ignipuncture. *Philadelphia Medical News*. August 30th, 1884.

10. Report on Surgery to the Illinois State Medical Society. *Weekly Medical Review*. June, 1884.

11. Surgery of the Nerves. *Kansas City Medical Index*. April, 1884.

12. On Fat Embolism. *New York Medical Journal*. August 16th, 1884.

13. Select Topics in the Surgery of the Nervous System. *Weekly Medical Review*. May 17th, 1884.

14. Tuberculosis of Joints. *Weekly Medical Review*. April 28th, 1884.

1885.

15. The Conditions Which Predispose Bones to Tuberculosis. *Western New York Medical Press*.

16. Tuberculous Surgical Affections. Edit. in *Annals of Surgery*.

17. The Early Treatment of Gun-shot Wounds. *Physicians' Magazine*. August, 1885.

18. The Surgical Sequelæ of the Exanthems and Continued Fevers. *Canadian Practitioner*. July, 1885.

19. Antiseptics. *Wood's Reference Handbook*.

20. A Case of Total Extirpation of the Larynx. *Medical Press of Western New York*. December, 1885.

21. Tuberculosis of Glands, Etc. Edit. in *Annals of Surgery*.

1886.

22. Cystic Degeneration of Kidney; Nephrectomy on the Youngest Patient Ever Surviving the Operation. *Medical Press of Western New York*. August, 1886. *Philadelphia Medical News*. May 22d, 1886.

23. Wounds of Head. *Wood's Reference Handbook*.

24. Lipoma Testis. Trans. *American Surgical Association*.

25. Electricity in Surgery. *Wood's Reference Handbook*.

26. Oesophageal Diverticulum. *Medical Press of Western New York*.

1887.

27. Address on Congenital Deformities of Mouth and Face. *Independent Practitioner* (Buffalo). November, 1887.

28. Intubation versus Tracheotomy. *Western New York Medical Press*. September, 1887.

29. A Further Study of Tuberculosis of Bone. *Western New York Medical Press*. January, 1887.

30. Laryngectomy. *Wood's Reference Handbook*.

1888.

31. Surgery of the Brain, based upon Principles of Cerebral Localization. Trans. American Congress Physicians and Surgeons. Volume 1. *New York Medical Journal*. November, 1888. (Three issues, pp. 63.)

32. A Study of Some of the Pyogenic Bacteria, Etc. Trans. American Surgical Association, 1888. *Philadelphia Medical News*. December 1st, 1888.

33. Extensive Thoracotomy for Sarcoma of Chest Wall. *Annals of Surgery*, 1888.

34. Abscess Containing Micrococcus Tetragenus. Trans. American Surgical Association, 1888.

35. Monograph, Diseases of the Breast Other Than Tumors. In Mann's *System of Gynecology*. Vol. II, pp. 34.

36. Splenectomy for Leucæmic Enlargement. *Annals of Surgery*.

37. Pylorus, Resection of. *Wood's Reference Handbook*.

38. Contributions to Abdominal Surgery. *Western New York Medical Press*. August, 1888.

39. Laparotomy for Gun-shot Wound of Abdomen. *Philadelphia Medical News*. August 4th, 1888.

40. Pyemia as a Direct Sequel of Gonorrhœa. *Journal of Cutaneous and Venereal Diseases*. December, 1888.

41. Laporotomy or Enterostomy. *New York Medical Record*. March 3d, 1888.

1889.

42. The Pathology of Suppuration. *Buffalo Medical Journal*.

43. A Study of Acute Infectious Processes in Bone. *American Journal of Medical Sciences*. June, 1889.

1890.

44. Monograph on the Congenital Defects and Deformities of the Face, Lips, Mouth, Tongue and Jaws. In Keating's *Cyclopedia of Diseases of Children*.

45. Art. "Trephining." *Wood's Reference Handbook*.

1891.

46. Wound Infection, Etc. *American Journal of Medical Sciences*. November, 1891.

47. A Study of Atrophy. Trans. American Orthopedic Association, 1891.

1892.

48. Clinical Contributions to the Subject of Brain Surgery. *Philadelphia Medical News*. December, 1892.

49. Monograph on Peritonitis, Appendicitis and Perityphilitic Abscess. In Hare's *Cyclopedia of Therapeutics* (20 pp.)

50. The Mutter Lectures on Surgical Pathology. Being a course of ten lectures delivered at the College of Physicians in Philadelphia, and published in the *Annals of Surgery*, Vols. 13, 14, 15. Published in book form, 300 pages, with above title, by J. H. Chambers & Co., St. Louis.

1893.

51. Actinomycosis, with Report of Case. *Buffalo Medical Journal*. January, 1893.

52. The Parasitic Theory of the Etiology of Carcinoma. *New York Medical Journal*. March, 4th, 1893. Trans. Medical Society State of New York. 1893.

53. Report of Case of Malignant Polyp from Base of Skull, Etc. *Annals of Surgery*. Trans. American Surgical Association, 1893.

54. The Importance to the Surgeon of Familiarity with the *Bacillus Coli Communis* Ibid.

1894.

55. On the Value to the Surgeon of Antipyrine, Etc. *Philadelphia Medical News*. December, 1894.

56. Forms of Peritonitis, Their Relation to Appendicitis, Etc. *Detroit Medical Age*. January 25th, 1894.

57. Rare Case of Fracture-Dislocation of the Vertebrae, With Recovery. *International Medical Magazine*. 1894.

1895.

58. A Series of Ten Lectures on the History of Medicine. Delivered at the University of Buffalo, Session of 1894-5. Published in the *Detroit Medical Age*. In book form, with much additional matter, by the F. A. Davis Co., Philadelphia. Two Editions.

59. The Location and Detection of Missiles. *Detroit Medicine*. June, 1895.

60. A Case of Spina Bifida Treated by Insertion of Celluloid Plate. *Buffalo Medical Journal*. August, 1895.

61. Fracture Into and Near Joints. *Atlantic Medical Weekly*. June 15th, 1895.

62. On the Consequences of Hyperemia and the Pathology of Inflammation, Etc. *New York Medical Record*. June 8th, 1895.

63. Acute Infectious Processes in Bone. *Boston Medical and Surgical Journal*. May 2d, 1895.

64. Results of the Division of the Pneumogastric and Phrenic Nerves, Etc. *Annals of Surgery*. August 1st, 1895.

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67. On the Deformities and Malformations Resulting From Acute Infections in Bone. *New York Medical Record*. November 2d, 1895.

68. Applications of a Knowledge of Bacteriology to Certain Surgical Affections. *Atlantic Medical Weekly*. February 9th, 1895.

69. Septic Infection Within the Cranium. *Chicago Medical Record*. February, 1895.

70. Record of Foreign Bodies Found in the Appendix. *New York Medical Record*. March 16th, 1895.

71. Surgical Diseases and Injuries to the Head. Monograph of 300 pages in Dennis and Billings' System of American Surgery.

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76. A New Ideal Styptic. *New York Therapeutic Progress*, January, 1896.

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80. Surgery by American Authors. Vois. II, 1896. Edited and largely written by Roswell Park. Lea Bros. & Co., Philadelphia, Pa.

81. Surgery by American Authors. 2d Edition, 1898. Same as above. 1 Volume.

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85. Indications for Operation in Tuberculosis of Kidney. *Journal of Cutaneous and Genito-Urinary Diseases*. August, 1898.

86. Iatro-Theurigic Symbolism. Maine Medical Association. June 2d, 1898.

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88. Gun-shot Wounds Made by Modern Missiles and Their Treatment. *Buffalo Medical Journal*. August, 1898.

89. The New York State Cancer Laboratory at Buffalo. *Charlotte Medical Journal*. September, 1898.

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108. Successful Removal of 265 cm. of Gangrenous Intestine. *Buffalo Medical Journal*. April, 1903. *International Journal of Surgery*. Vol. 1, No. 1.

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112. Successful Removal of 265 cm. of Gangrenous Intestine. *Archives Internationales de Chirurgie*. 1903.

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114. Surgery in America. *Encyclopedia Americana*. Volume XV. March, 1904.

115. Spontaneous Gangrene of the Hollow Viscera. *Annals of Surgery*. April, 1904.

116. A Letter from Berlin. *Buffalo Medical Journal*. April 10th, 1904.

117. Surgical Treatment of Dyspepsia. *Buffalo Medical Journal*. July, 1904.

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118. Contributions to the Literature of Foreign Bodies in the Pharynx and Oesophagus. *Buffalo Medical Journal*. Clinical Reports.

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123. The Story of the Discovery of the Circulation. *Buffalo Medical Journal*. August, 1906.

124. A New Method of the Utilization of the Sac in the Radical Cure of Hernia. Surgery, Gynecology and Obstetrics. August, 1906.

125. What do Recent Studies Regarding the Thyroid and Parathyroids Teach Concerning the Treatment of Exophthalmic Goitre? *Medical Review of Reviews*. July and August, 1906.

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126. The Work of the New York State Cancer Laboratory—Retrospective—Prospective. *New York State Journal of Medicine*. May, 1907.

127. Non-Inflammatory Affections of Bones. Volume 3, *American Practice of Surgery*. By Bryant and Buck.

128. The Modern Practice of Surgery. (1100 pages). Lea Bros., Philadelphia, Penna.

129. The Medico-Legal Consideration of Gun-shot Wounds. From 2d Edition of Withaus and Becker's *Medical Jurisprudence*. Revised by Author in 1893-4. Not published till 1906-7.

130. A Case of Cyst Within the Spinal Canal. By William Krauss, M. D., and Roswell Park, M. D. Brain. *Journal of Neurology*. 1907.

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131. Some of the Modern Aspects of the Cancer Problem. Hartford Academy of Medicine. March 23d, 1908.

132. The Nature of the Cancerous Process. International Society of Surgery. Brussels, Belgium. September 21st, 1908. Published in Transactions of International Society.

133. Traitement du Cancer des Differents Organes. November 25th, 1908.

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Introduction to "The Doctor in Art." Published by the Douglas Publishing Co., Buffalo, 1909.

135. The Career of the Military Surgeon. *Military Surgeon*. May 29th, 1909.

136. The Next Twenty-Five Years in Surgery. *Buffalo Medical Journal*. June, 1909.

137. The Relation of the Internal Secretions to Surgical Conditions. *Northwest Medicine*, Seattle. August, 1909.

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138. The Cancer Problem. *Southern Medical Journal*. March, 1910.

139. Brewer's Yeast in the Treatment of Ulcers, Necrotic and Tubercular Conditions. *American Journal of Dermatology*. January, 1911.

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140. Recent Views Concerning the Treatment of Cancer, Based Upon Its Nature. *Buffalo Medical Journal*. April, 1911.

141. Remarks on the Early History of Medicine in America. *Buffalo Medical Journal*. July, 1911.

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142. Anæsthesia by Intra-Tracheal Insufflation. *Buffalo Medical Journal*. January, 1912.

143. Surgery of the Liver and Gallbladder. *Handbook of Practical Treatment*. Edited by Drs. Musser & Kelly, 1912.

144. If Washington Should Return to His Country. (Unpublished). University Day Address. February 22d, 1912.

145. Thanatology: A Questionnaire and a Plea for a Neglected Study. *Journal American Medical Association*. April 27th, 1912.

146. The History of the Dentist's Art. *Dental Forum*. September, 1912.

147. The What and Why of Eugenics. *Buffalo Sunday News*. October 20th, 1912.

148. Isopathy in the Twentieth Century. *Post-Graduate*. October, 1912.

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149. The Evil Eye, Thanatology and Other Essays. (380 pages). Boston: R. G. Badger, Publisher. January, 1913.

150. Fracture of the Atlas: Separation of a Fragment and its Subsequent Extrusion Through the Mouth. (Case of Dr. James P. White). *Buffalo Medical Journal*. January, 1913.

151. Report of Fourteen Cases of Spina Bifida, and One of Sacrococcygeal Tumor. *Buffalo Medical Journal*. March, 1913.

152. What Prospect for a Successful Therapy of Cancer? *International Medical Journal*. May, 1913.

153. The Thymus and Other Ductless Glands. *Cleveland Medical Journal*. May, 1913.

154. Conclusions Drawn from a Quarter-Century's Work in Brain Surgery. *N. Y. State Journal of Medicine*. June, 1913.

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155. On the Relation of the Ductless Glands to the Work of the Surgeon. (Read at Fourth Clinical Congress of Surgeons of North America. Chicago, November 14th, 1913). *Surgery, Gynecology and Obstetrics*, March, 1914.

156. Brain Surgery. *Reference Handbook of Medical Sciences*.

157. Lecture. University of Buffalo. Radium and Radioactivity.

158. Of What Does the University Consist? *Buffalo Medical Journal*. March, 1914.

Dr. Frank Byron Brooks, Syracuse, 1881, died in Syracuse, December 26, aged 58.

Dr. Diogenes D. Case, Bellevue, 1869, died at his home in Morrisville, N. Y., January 7, aged 70.

Dr. Frank Knapp of Binghamton (not listed in State Directory), died January 12, aged 55.

Dr. Frederick E. Barrows of Utica (not listed in State Directory), died January 19, aged 64 years.

Dr. Ray Vaughan Pierce, Eclectic Medical Institute of Cincinnati, 1865, of Buffalo, died at his winter home, St. Vincent's Island, Fla., February 3, of cerebral hæmorrhage, aged 64.

Dr. Henry E. Zielly, Geneva Medical College, 1849, died at Spokane, Wash., November 18, 1913, aged 87.

NOTE.—Mention of the fact that a man is not listed in the State Directory, corrections of address, etc., are not intended in any sense as criticisms of the committees which have prepared this work. Errors in so extensive a work are inevitable and changes are frequent. Retired physicians seldom take the pains to keep their names in the special list published. Again, especially in death notices, we cannot be sure that all doctors are doctors of medicine, hence we note the fact of absence from the State list, in order to facilitate corrections.

CORRESPONDENCE.

This department is intended for the presentation of news and views not coming within the scope of other departments, and particularly to afford opportunity for discussion and criticism of views elsewhere expressed.

Ithaca, N. Y., February 10, 1914.

Editor BUFFALO MEDICAL JOURNAL:

I would be greatly indebted for the names of any reputable physicians of this section of the country who have reported successful use of Hypnotic Suggestion in the treatment of disease.

J. W. STEWART.

Dear Mr. Editor:

31 January, 1914.

I note that the January number of your journal contains an abstract of an article (page 399) on "The Treatment of the Præ-Tuberculous Stage of Consumption," to which my name is appended as author. I beg to inform you that my name has been used without my authority and I distinctly repudiate any responsibility therefor. The opinions embodied in that article are not my opinions, and I have had no experience of the remedy referred to. I trust you will make this clear to your readers.

Yours faithfully,

S. I. GUBB, M. D.,

Late Editor of the Medical Press and Circular, London.

BOOK REVIEWS.

Books mentioned may be inspected at and ordered through this office. So far as possible, books received in any month will be reviewed in the issue of the second month following.

DIAGNOSTIC METHODS. Chemic, Bacteriologic and Microscopic. Ralph W. Webster, M. D., Ph. D., Chicago. 3d edition, 692 pages, 37 colored plates, 164 other illustrations; \$4.50. P. Blakiston's Son & Co.

The speedy exhaustion of previous editions speaks well for the popularity of this book and the colored plates alone might well explain the popularity. While no one section, as the urine, gastric contents, fæces, parasitology, blood, etc., supplants special text books, the work in each section is thorough, up to the point of specialization, and, indeed, while the simpler tests are well treated, the average practitioner will find in each section a larger program than he will probably carry out. This is wholesome, as it stimulates further study, and while it may not always be possible for the practitioner to follow the book to the limits thus set, there are frequently encountered cases in which it is worth while to make more elaborate investigations than the routine, and for these the book is an efficient guide. While abundantly illustrated, the author does not depend upon illustrations to cover deficiencies of description, his style of writing being clear and interesting, inviting study in advance of the use of the book as a laboratory guide.

CLINICAL PATHOLOGY. P. N. Pantan, M. A., M. B., B. C., London. P. Blakiston's Son & Co., Philadelphia. 446 pages, 11 colored plates, 2 uncolored, 45 other illustrations; \$4.00.

It will be noted that this book covers somewhat the same subject as the preceding, but from a different viewpoint, as sug-

gested by the titles. It is divided into the following sections: Blood, Bacteriology, Puncture Fluids, Urine, Alimentary System, Eye and Skin, Respiratory Tract, Histology. Considerable attention is given to bio-chemic blood reactions, diagnostic and therapeutic, to neoplasms generally, to preparation of tissues for microscopic examination, while the examination of excreta for purely diagnostic purposes, is covered more with reference to general pathologic principles than as bases for detailed diagnosis. At the same time the designation of the field of pathology as "clinical" is amply justified by the practical way in which the author treats each section.

THE PRACTICAL MEDICINE SERIES. 10 annual volumes, under the general editorial charge of Charles L. Mix, A. M., M. D., Chicago; series of 1913. The Year Book Publishers, Chicago; price for series, \$10.00.

Vol. 9, SKIN AND VENEREAL DISEASES: MISCELLANEOUS TOPICS. Edited by W. L. Baum and Harold N. Moyer, Chicago; 228 pages, illustrated; \$1.35.

Vol. 10, NERVOUS AND MENTAL DISEASES. Edited by Hugh T. Patrick and Peter Bassoe, Chicago; 244 pages, illustrated; \$1.35.

These two volumes complete the series for 1913, the first volume of the 1914 series to appear shortly. Each volume is complete in itself, but we strongly advise subscription to the entire series. As a review of current literature, brought up to within a few weeks of date of publication of each volume, this series is unrivaled, and, for economy and completeness, maintains the highest standards established for such reviews.

PATHOGNOMY OF PAIN. Pamphlet of 26 pages, copiously illustrated, published by the Arlington Chemical Co. of Yonkers, N. Y., distributed to physicians free.

This gives plates in colors showing distribution of cranial, cervical, dorsal, lumbar and sacral sensory roots, a list of segments supplying the various viscera, diagnostic tables as to distribution and other characteristics of pain. It is a very valuable summary of sensory anatomic distribution and of the diagnostics of painful sensations.

THE CHAMPLAIN TERCENTENARY. Final Report, 1913. Prepared by Henry Wayland Hill, LL. D., Secretary of the Commission; Albany, J. B. Lyon Co., State Printers.

This is an imposing volume of 325 pages, copiously illustrated. The first part deals with the construction of memorials to Cham-

plain and the visit of the French delegation to America; the second with the dedicatory ceremonies at various places of historic interest about Lake Champlain in 1912; the third with the part played by the U. S. Government, the history of the work of the commission, and general historic and biographic data; while the appendix contains the report of the House Committee on Foreign Affairs, a description of historic English forts, the original report of Capt. Mott regarding the appointment of Benedict Arnold to command the Ticonderoga expedition, notes on the archæology of the Champlain valley by Prof. Geo. H. Perkins, State Geologist of Vermont, and financial statements, the whole book being indexed. The extreme importance of the commemoration of the history of this region cannot be too strongly emphasized, and it is well that the State has empowered a Commission not only to represent it in the arrangement of details and in showing hospitality to distinguished foreign guests, but capable of recording history. This report, as well as the former volume, reflects credit especially upon the Secretary of the Commission.

THE TREATMENT OF RHEUMATIC INFECTIONS. Press of Parke, Davis & Co., Detroit. 134 pages, frontispiece, plate of pure culture of streptococcus rheumaticus sent free to physicians on request.

This book contains a general description of the use of Phylacogens, methods of preparation, testing, technique, etc., as well as bibliography, extracts from clinical reports, index, etc. Contraindications are frankly stated. In a total of 6324 cases, 83 per cent. recovered, 17 are recorded as failures, but include cases in which rheumatism in the specific case did not exist, moribund cases and the like. In no case could death be attributed to the use of phylacogen, but a considerable list of fatal cases is given, including syphilis, cancer, advanced tuberculosis, sarcoma, typhoid fever, puerperal and other forms of sepsis, etc. All things considered, few, if any, remedies have given such brilliant results and have been so free from danger if used with any sort of discrimination.

A TEXT-BOOK OF THE PRACTICE OF MEDICINE. Eleventh edition, thoroughly revised, by James M. Anders, M. D., Ph. D., LL. D., Professor of Medicine and Clinical Medicine, Medico-Chirurgical College, Philadelphia. Octavo of 1335 pages, fully illustrated. Philadelphia and London: W. B. Saunders Company, 1913. Cloth, \$5.50 net; half Morocco, \$7.00.

The value of this book is impressed by the number of the edition. No attempt has been made to depart from conventional

arrangements or, in other ways, to gain a show of novelty. On the other hand, the most recent advances have been included and the work has been rewritten as necessary. It is a substantial, thorough treatise deserving a continuance of the favorable regard of the profession.

MATERIA MEDICA, PHARMACOLOGY, THERAPEUTICS AND PRESCRIPTION WRITING, for Students and Practitioners. By Walter A. Bastedo, Ph. G., M. D., Associate in Pharmacology and Therapeutics at Columbia University. Octavo of 602 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1913. Cloth, \$3.50 net.

The author has taken as a model the old fashioned systematic treatise, classifying therapeutics according to general methods of action, instead of cutting the Gordian knot by recourse to an alphabetic arrangement. It is obvious that the more discriminating our knowledge of pharmacology becomes, the more difficult is it to follow the older system, yet it has advantages that are equally plain. The author has most skilfully avoided being a slave to a system of classification, while preserving the merits of this system. It would be a gross injustice to stigmatize the book itself as old fashioned. Rearrangements of old tables of classification, addition of drug groups, definite scientific statements where we formerly had only general impressions, sometimes very crude and even incorrect, the addition of many valuable remedies and even of whole groups of therapeutic measures, the solution of therapeutic problems formerly insoluble, and, more valuable yet, wholesome skepticism and even denial of therapeutic powers formerly believed in, mark a tremendous advance over earlier text books.

MORTALITY STATISTICS, Bureau of the Census, 1911.

Great improvement is shown both in the original detailed reports and in the scientific assortment and compilation. The relative fewness of unspecified ages, dubious diagnoses, etc., show that we have, for the registration area, a mass of carefully compiled, statistics dependable for scientific conclusions, barring, always, the personal error of individual reporters.

ANATOMY AND PHYSIOLOGY, a Text Book for Nurses. John Forsyth Little, M. D., Philadelphia, published by Lea & Febiger; 483 pages, 149 engravings and 4 plates; \$1.75.

This is one of the Nurses' Text Book Series. The customary arrangement of anatomies is followed, including a brief pre-

liminary consideration of histology and embryology, but physiology, including certain parts of chemistry, is interpolated at convenient points in the descriptions so that the student is impressed with the use of the organs and, one might also say, the excuse for learning dry details of structural arrangement, as she progresses. It has seemed to us that this might be a good way to teach medical students also, and, indeed, our own study of these branches in the medical school was facilitated by having had what was, at the time, an exceptionally thorough course in physiology at a high school. The book concludes with an exceptionally good glossary and an index.

PRINCIPLES OF SURGERY. By W. A. Bryan, A. M., M. D., Professor of Surgery and Clinical Surgery at Vanderbilt University, Nashville, Tennessee. Octavo of 677 pages with 224 original illustrations. Philadelphia and London: W. B. Saunders Company, 1913. Cloth, \$4.00 net.

The writer well states that the title of his book might be limited to the word "Principles," as it enters broadly into pathology and other branches of medicine, though always, apparently, with a view to their bearing on surgery. About half the book deals with what might be termed surgical pathology, including sepsis, asepsis and certain infections, as tuberculosis, syphilis, actinomycosis, etc., and about a third with tumors. While treatment is considered under each appropriate division and a chapter is devoted to anæsthesia, the author has avoided competition with works on operation and surgical technic. On the other hand, he has given a practical turn to the discussion of principles, so as to avoid duplicating text books on pathology. In short, he has struck a happy mean which has, for some time, not been represented in text books.

HISTORY OF MEDICINE, WITH MEDICAL CHRONOLOGY, BIBLIOGRAPHIC DATA AND TEST QUESTIONS, by Fielding H. Garrison, A. B., M. D., Principal Assistant Librarian, Surgeon General's Office, Washington, D. C., Editor of the "Index Medicus," Octavo of 763 pages, many portraits. W. B. Saunders Company, Philadelphia and London, 1913. Cloth, \$6.00 net; half Morocco, \$7.50 net.

The ancient Egyptian, Oriental and Greek (including Roman) and other early systems are first considered, and their essential identity is pointed out. More than half of the book is devoted to the nineteenth century, biography and medical progress being jointly considered. The appendix on medical chronology, with

general historic events as landmarks, is especially valuable. Except brief references, the author wisely omits biographies of living men. 150 test questions, in an appendix, serve to call the attention of the reader to salient points and to render his study more thorough.

PROCEEDINGS OF THE ROYAL SOCIETY OF MEDICINE, Vol. 7, No. 2, December, 1913. Published by Longmans, Green & Co., London, New York, etc. 7/6d.

(Contrary to our precedent in regard to works of this nature, covering a wide variety of monographs, representing the work of different sections, in the present instance, we glean the following points of special interest:

Chaldecott and Bryan speak highly of Crile's technic to insure innocuous association in operations. Albert Wilson, from an experience of about forty cases since 1880, recommends the excision of the primary lesion of syphilis, as diminishing the degree of infection and even eradicating the disease. He also praises arsacetin, especially in tertiary cases and is conservative in regard to the diagnostic reliance to be placed on the Wassermann reaction.

Gossage and Hicks report two cases of non-cancerous gastric tumor, aged 50 and 37, both fatal, apparently on account of anæmia, 20 per cent. Hb, 1,560,000 reds, 24,200 whites and 25 per cent. Hb., 1,240,000 reds and 39,000 whites respectively. The first tumor was of the size of a golf ball, 2 inches from the pylorus, sessile, fibro-leio-myoma; the second, same size, attached by pedicle to middle of posterior wall, fibro-sarcoma of slight malignancy.

Pitt reports obstruction of Steno's duct by calcified fish bone, and alludes to other cases in the literature, 27 in Wharton's, 19 in Steno's and 2 in sublingual ducts.

Crowe details cultural experiments and concludes that the essential cause of rheumatoid arthritis is the common inhabitant of the skin, the micrococcus epidermidis, variety deformans, producing the disease mainly by action on some portion of the nervous system and often associated with other germs.

Minett, from a careful study of the micrococcus neoformans, isolated from non-ulcerating cancers, concludes that this is merely a variety of staphylococcus albus due to deep growth, such as can be isolated from deep tissues in both human beings and animals, the modification being due to anærobic conditions, and that there are no biologic reactions indicating any specific relation to cancer.

COXA VARA, Its Pathology and Treatment. R. C. Elmslie, M. S., F. R. C. S., London, Oxford University Press, American Branch, 35 W. 32, New York; 35 pages, 34 radiograms, photographs and cuts; paper cover, 60 cents.

This is a valuable monograph, both didactic and clinical.

REPORT OF THE COMMITTEE ON INQUIRY INTO THE DEPARTMENTS OF HEALTH, CHARITIES AND BELLEVUE AND ALLIED HOSPITALS IN THE CITY OF NEW YORK.

Section 7—Care of Out-Patients. This report will interest all engaged in analogous lines of medical service and sociology. It is frankly critical at times, as it should be, since the ultimate responsibility for shortcomings rests with the city. The third section on sickness in the home and proposed health center is especially interesting. Naturally, the report, so far as details go, applies more particularly to problems of the Metropolis and only in a general way to those of smaller cities and towns like those of our special territory.

TRANSACTIONS OF THE AMERICAN LARYNGOLOGIC, RHINOLOGIC AND OTOLOGIC SOCIETY of 19th Annual Meeting, held in Washington, May 8-10, 1913.

TRANSACTIONS OF THE AMERICAN LARYNGOLOGIC ASSOCIATION of 35th Annual Meeting, held in Washington, May 5-7, 1913.

Both of these volumes are published by the organizations and contain illustrated monographs of great value. In accordance with our custom, we do not select any special papers for comment, as it is obviously unfair to discriminate and impossible to do justice to all. As many individuals are members of both organizations, and as the dates of meetings have obviously been selected to allow attendance at both, we venture to suggest that the maintenance of essentially duplicate organizations in this and other specialties is contrary to general principles of economics.

THE PATHOLOGY OF GROWTH: TUMORS. By Charles Powell White, M. D., F. R. C. S., Manchester, Eng., published by Paul B. Hoeber, 69 E. 59, New York; 235 pages, 86 illustrations; \$3.50.

This is the first volume of a series under the general editorship of A. E. Boycott, B. S., M. A., M. D., a name more familiar to us as a common noun or verb than in its original use as a proper noun. The present volume discusses the relation of

tumors to growth in the general sense, including hypertrophy and the characteristics of each particular neoplasm. While the morbid anatomy and physiology are well treated, the chief value of the work lies in its scholarly discussion of general principles of tumor development, ætiology, etc. We commend it highly, not only to the pathologist, but to the general practitioner as containing interesting information not usually found in text books nor readily attained elsewhere, and as suggestive of lines of both laboratory and clinical research, some of which may throw important light on a vaguely understood subject. It is a work that makes the reader think, without being a purely speculative presentation of the subject.

DISEASES OF THE KIDNEYS AND NERVOUS SYSTEM. By A. L. Blackwood, B. S., M. D., Professor of Clinical Medicine in the Hahnemann Medical College, Chicago. Author of "A Manual of Materia Medica, Therapeutics and Pharmacology," "Diseases of the Heart," "Diseases of the Lungs," "Diseases of the Liver, Pancreas and Ductless Glands," "The Food Tract, its Ailments and Diseases of the Peritoneum" and "Contagious and Constitutional Diseases." 346 pages; cloth, \$1.50; postage, 9 cents. Philadelphia. Boericke & Tafel, 1913.

This is the sixth and final volume in a series covering internal medicine, by the same author, but is independent of the other volumes. As stated by the author, the work is intended for the student and general practitioner, not for the specialist. The common diseases are briefly discussed, without entering into minutiae or problems sub judice. Reference is facilitated by such headings, in black type, as Definition, Etiology, Pathology, etc. Drug treatment is mainly limited to mention of appropriate homeopathic remedies.

ABSTRACTS

PELLAGRA. C. G. Roehr of Fort Pierce, Fla., *Charlotte Med. Jour.*, January, 1914, reports thirteen cases previously falsely diagnosed as pellagra, as follows:

1. Diagnosis, Leprosy; treatment..... Result, returned to Nassau, B. P.

7. Diagnosis, Amœba and vermes; treatment, Emetin and thy-cure.

3. Diagnosis, Syphilis and Rhustox; treatment, specific and Rhustox (1); apparent cure.

4. Diagnosis, Amœba and Septic ulcers intestinal (2) ; treatment, Intestinal Antiseptics ; result, died.
5. Diagnosis, Amœba and gnats ; treatment, Emetin ; result, cured.
6. Diagnosis, Amœba and sunburn ; treatment, Emetin ; result, cured.
7. Diagnosis, Amœba and vermes ; treatment, Emetin and thymol ; result, cured.
8. Diagnosis, Amœba and jelly fish tox ; treatment, Emetin and quit fishing ; result, cured.
9. Diagnosis, Amœba and chronic rhus tox ; treatment, Emetin and rhus tox ; result, cured.
10. Diagnosis, Amœba and chronic rhus tox ; treatment, Emetin and rhus tox ; result, cured.
11. Diagnosis, Jelly fish tox and rhus tox ; treatment, stopped fishing and rhus tox ; result, improved ; resumed fishing, recurred.
12. Diagnosis, Meningitis (3) cerebrospinal ; treatment. . . . ; result, died.
13. Diagnosis, Chronic rhus ; treatment, rhus tox ; result, cured.

In this connection we may acknowledge considerable skepticism as to the specific nature of Pellagra. Auto-intoxication, senile or other trophic changes, malnutrition, or some definite dietetic deficiency or excess, with or without various more or less specific infections may adequately account for Pellagra, in the future, as they have in the past. This is not a definite opinion that so-called Pellagra cases may not include a certain proportion that are of a definite pathologic nature and may even be due to a specific microorganism, but we "want to be shown."

TREPONEMATA may be demonstrated in the brain of the majority of cases of General Paralysis by careful examination of serial sections. Levaditi, Marie and Baukowsky, *Ann. de l'Inst. Pasteur*.

LEFT HANDEDNESS. Bardeleben, *Münch. Med. Woch.*, Dec. 2, 1913, holds that this is not a sign of inferiority. 6.8 per cent. of German recruits are left handed, but about 26 per cent. of originally left handed children become right handed by training. About 9 per cent. of human beings are, therefore, originally left handed, and this accounts, by the law of chance, for the small number of left handed persons who have become famous. The

gibbon and orangoutang are usually right handed, the gorilla and chimpanzee left handed. Left handedness is really a phase of general muscular left sidedness, with corresponding greater development of opposite nerve centers. It is undoubtedly hereditary in both the familial and racial senses. The real problem is to explain why the majority of persons are right handed.

REMOVAL OF EMBOLUS. Fritz Bauer, *Zentralblatt für Chir.*, December 20, 1913, reports a successful operation on the abdominal aorta. Key, *Hygeia*, 1913, reported a successful operation for thrombus of the femoral and found one other successful case and two unsuccessful of similar operations on peripheral arteries. Pulmonary embolism has been subjected to operation twelve times in Trendelenberg's clinic and four times in Sauerbruch's, all unsuccessful.

HAEMA-URO-CHROME. Further note: On page 388 of the January issue we reviewed an article on this subject by Theodore G. Davis, in the *California State Jour. of Med.* The color is developed by heating slowly to boiling with 10 per cent. of HCl , cooling and extracting with ether, in a flask, indican appearing above the hæma-uro-chrome, which is claimed to be diagnostic of cancer. We have verified this test in a case of gastric cancer, but the test is practically identical with that for "uroerythrin" or "urorosein," boiling the urine in a test tube and precipitating with Barium chlorid, whose insoluble sulphate and phosphate bring down the coloring matter. A still more convenient way is to boil in a tube and extract with chloroform, which carries the pigment to the bottom and shows the same sharp discrimination between the red pigment, whatever it may be called, and indican. Having used essentially the same test for many years, we are able to state with confidence that it is characteristic of cancer after the disease has caused metabolic disturbances, that it does not appear until the cancer has produced such disturbance and that the same or an apparently identical pigment may be encountered at times in various other conditions. It certainly indicates some grave disturbance of metabolism and usually is found in highly colored and quite acid (75 per cent. by direct titration and over) urines. The converse, namely, that high colored and highly acid urines usually give the test, is not true in our experience, unless the moderate degree of pink that can be precipitated with barium or extracted with chloroform, ether, etc., directly or after heating with mineral acid, indicates the same reaction in slight degree. We would be glad to have further light shed on this reaction.

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The right is reserved to decline papers not dealing with practical medical and surgical subjects and such as might offend or fail to interest readers. Contributors are solely responsible for opinions, methods of expression and revision of proof.

Appendicitis

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THE subject of appendicitis has been for many years one of endless discussion and voluminous writing. It is considered by many of the profession as a disease easy of diagnosis and simple of treatment. It is, however, one in which the errors in diagnosis are exceedingly numerous and in which the greatest skill may be required in its treatment. In this paper we shall discuss the pathology, diagnosis and treatment in a more or less general way and shall make use of the summaries of some of our cases in illustrating various points at issue.

The pathology has been discussed under many heads, but the following divisions will serve as a basis for the description of the morbid condition.

1. Acute Catarrhal Appendicitis.
2. Acute Suppurative Appendicitis.
3. Obliterative Appendicitis.
4. Chronic Appendicitis.

In the acute catarrhal condition the organ, externally, may appear quite normal, with the exception of, possibly, some in-

jection of the blood vessels. On section the mucosa is boggy and somewhat thickened and perhaps discolored. Feces may or may not be present. Microscopically the serosa may appear quite normal and the muscular layer will probably show nothing pathological. There may be some cellular infiltration into the submucosa and the vessels here will be engorged. The mucosa itself is distorted, the glandular cells swollen, granular, poorly stained and irregular. The lymphoid tissue will be found more or less hyperplastic. There may be all grades in this catarrhal condition ranging from only a slight oedema of the mucosa to almost a necrotic process.

In acute suppurative appendicitis the causative factor is bacterial. The serosa is sandy looking and possibly small threads of fibrinous material may be present. The blood-vessels stand out prominently. The whole organ may appear red and swollen. On section the wall may be thick or thin, depending on the time of infection, and the lumen patent and perhaps containing an oval fecolith, which has many times been mistaken for a date seed. Microscopically, the serosa is seen to be thickened, and just beneath are numerous polynuclear neutrophiles and often a large percentage of eosinophiles. The blood vessels throughout the wall are engorged. Infiltrating all of the layers will be found polynuclear leucocytes in more or less abundance, and all the cells concerned in any acute inflammatory condition, and bacteria also may be stained. The mucosa is very irregular and in certain areas may have disappeared altogether or may be found lying in the lumen in a necrotic condition, surrounded by leucocytes and other cells and masses of bacteria. If ulceration has taken place it is simply a later stage in the suppurative process. A section from such an ulcer shows a complete lack of any anatomical structure and the normal tissues present replaced by bacteria, leucocytes, fragmented nuclei and all the constituents of an extreme inflammatory process. If healing has begun early granulation tissue will be found.

In obliterative appendicitis a somewhat similar picture may be presented, though in this condition the immediate etiology is distinctly different. The remote etiological factor causing the condition may have been catarrhal with a clearing up of the inflammatory picture, but with the formation each time of more or less scar tissue. This finally has cut off the single blood supply and gangrene has resulted. Any process either in the appendix or in its immediate vicinity causing the compression of the arterial supply would have the same effect. The organ appears dark brownish red usually, is bad smelling and covered with

greyish pasty looking exudate. On microscopical examination it is seen that there is no normal anatomical picture left. When gangrene occurs the surrounding tissues quickly throw out an exudate of fibrin, and becoming matted together wall off the general peritoneal cavity. These adhesions early in the process are quite fragile and easily torn, but if allowed to remain they may become fibrous.

In chronic appendicitis, the acute or catarrhal condition occurring from time to time causes the formation of fibrous tissue which may not cut off the blood supply, and instead of the organ becoming gangrenous it becomes a fibrous cord.

All grades of the above conditions may be found merging one into the other, but these are mentioned as applying directly to the subsequent discussion of the subject.

THE DIAGNOSIS OF ACUTE APPENDICITIS.

In the diagnosis we have to differentiate appendicitis from all the acute disturbances of the abdominal cavity, and the following conditions have, in our experience, been the source of the most difficulty:

1. Acute pyelitis.
2. Acute cholecystitis.
3. Acute salpingitis and acute ovaritis.
4. Typhoid fever.
5. The rupture of an extra-uterine pregnancy.
6. The rupture of a gastric or duodenal ulcer.

The classical signs and symptoms, as we all know, are the acute onset—pain, elevated temperature, increased pulse rate, nausea and vomiting, constipation and spasm of the muscles on the right side of the abdomen. An examination of the blood shows an increase in the number of the leucocytes with a preponderance of the polynuclear cells. The diagnostic value of the blood count depends more on the polynuclear percentage than on the actual count of the leucocytes; for example, a high leucocyte count with a low polynuclear percentage is a much more favorable sign than a moderate leucocytosis with a high polynuclear percentage. In favorable cases the signs and symptoms may subside in a few hours, resolution occurring. It is sometimes noted in the very acute cases that there is a sudden cessa-

tion of the pain with a distinct improvement in the clinical picture. This may be due to two causes. First: The distended and inflamed appendix may empty itself into the cæcum, and this is quickly followed by resolution of the attack. Second: The distended and gangrenous appendix may rupture and empty itself into the general peritoneal cavity; this is very shortly followed by a rapidly spreading general peritonitis. As stated above, this phenomenon occurs in the very acute cases, and, therefore, it is most important not to be misled by any apparent improvement. If the signs and symptoms do not improve within the first twenty-four hours, it is probable that the disease, instead of resolving, will become more serious, the signs and symptoms becoming more marked.

In the more serious cases the appendix becomes gangrenous, perforates and causes a rapidly spreading general peritonitis. In those cases running a less acute course adhesions are formed, shutting off the general peritoneal cavity from the focus of the infection, and we have the formation of an abscess, in which the appendix is generally found to be gangrenous, and sometimes lying detached in the abscess cavity.

If the case is seen early and the signs and symptoms are typical, the diagnosis may be an easy one, but the clinical picture is only too often deficient and in some cases very puzzling. There is no more pernicious thing for a man to do than to make the diagnosis of appendicitis, because he finds a patient suffering from an acute pain in the right abdomen; this, however, is very commonly done.

1. In acute pyelitis there is the history of an acute onset, pain in the right side, elevated pulse rate and temperature; nausea and vomiting may or may not be present; the muscles on the right side are not as a rule rigid; colonic irritation and abdominal distension are usually present; the blood count is high with a preponderance of the polynuclear cells. The pain may be severe, but, on examination, it is found to be more pronounced in the costo-vertebral angle of the right side. Examination of the urine shows pus cells, casts, possibly blood cells and bacteria in great numbers. It is, therefore, most important in all cases of acute abdominal disease to investigate the urine and the presence or absence of pain in the costo-vertebral angles. As an illustration of this we give a summary of the case of Mr. S. We were asked to operate for acute appendicitis. He had been ill for three days. He had been nauseated and had vomited twice. His bowels had been moved by cathartics. His temperature was 104.5 and his pulse rate was 100. Examination of the

abdomen revealed that it was markedly distended, due largely to colonic distension; the abdominal muscles were not rigid; there was some tenderness over the cæcum, ascending and transverse colon; there was marked tenderness at the right costo-vertebral angle, and on deep palpation over the right kidney. A single sample of urine was taken and found to contain pus, blood cells, casts and bacteria in great numbers. Cultures from the urine showed the presence of streptococci. Under vaccine and medicinal treatment he made an uneventful recovery.

2. In acute cholecystitis the signs and symptoms are very similar to those of acute appendicitis with pain, temperature, etc. There is, however, very commonly associated with it a more or less marked jaundice, and the appearance of bile salts in the urine. The pain is usually more pronounced in the right upper quadrant and radiates through to the back below the scapula: it is elicited most markedly by the hammer stroke test of Murphy. The absence of jaundice and bile salts in the urine do not, however, exclude gall bladder disease, as these are only present when there is an associated inflammation of the common duct. In their absence the hammer stroke test is of great importance. There may or may not be an associated enlargement of the liver. If the muscular rigidity is not too marked the gall bladder may be palpated and found to be enlarged and very sensitive. If the muscles are too rigid to permit palpation of the organ percussion may demonstrate the enlargement, but the enlargement may be hidden by the associated distension of the colon, which in our experience is very commonly present.

3. In acute salpingitis and ovaritis the signs and symptoms are very similar to those of acute appendicitis, but they are more pronounced in the lower abdomen. There is the presence or history of an acute vaginitis. A pelvic examination demonstrates that the uterus is fixed with a very sensitive swelling at one side of it. The complement-fixation test for gonorrhœa may be positive where the causative factor is the gonococcus. There is a well marked leucocytosis with a preponderance of the polynuclear cells. Examination of the urine may or may not show pus cells, bladder cells and bacteria, and this depends upon whether or not there has been an acute urethritis associated with the vaginitis.

4. In typhoid fever the onset is insidious, and very often the patient, though feeling below par, keeps along the even tenor of his way for about a week before calling in his physician. At this period of the disease he may feel nauseated and may even

vomit. There is usually some distension of the abdomen; pain in the right side may be present; gurgling may usually be obtained by palpation over the right iliac fossa. Blood examination usually shows a leukopenia, but where there is a secondary bacterial infection of the ulcers we may find a leucocytosis with a preponderance of the polynuclear cells. A Widal reaction may be negative, in fact, it may not be obtained until the end of the second week of the typhoid; a blood culture is, however, usually positive after the second or third day. Diarrhoea or constipation may be present. The abdominal muscles, as a rule, are not rigid, but there may be considerable abdominal distension. Rose red spots are not evident and the spleen is not much enlarged. Later on in the course of the disease the clinical picture and Widal reaction, where they have been heretofore vague, become typical and demonstrate the nature of the trouble.

As an illustration of this we give a summary of the case of Mr. M. When first seen by us Mr. M. had been confined to his bed for twenty-four hours. During that time a careful laboratory investigation had been carried out. The blood showed a marked leucocytosis with a preponderance of the polynuclear cells. A Widal reaction had been negative. Examination of the urine had been negative. On examination we found moderate distension with some tightening of the abdominal muscles. There was some tenderness on palpation over the cæcum, and this extended over the ascending and transverse colon; there was some gurgling on palpation over the cæcum; there was no tenderness over the back and none over the gall bladder. The spleen was not enlarged; there were no rose red spots. There was no nausea and the bowels were constipated. He gave a history of feeling "seedy" for some time. He had suffered from indigestion and constipation for years. No diagnosis was made and the laboratory investigation was continued. The clinical picture continued much the same with a marked leucocytosis. On the fourth day after our first consultation the Widal reaction was positive and he had a severe intestinal hemorrhage. During the course of the disease he had frequent intestinal hemorrhages but eventually made an excellent recovery. From the presence of the leucocytosis, instead of the customary leukopenia, and the frequency of the intestinal bleeding he undoubtedly had a severe secondary infection of the typhoid ulcers.

5. In ruptured extra-uterine pregnancy the onset is sudden and accompanied by shock, which varies according to the amount of the hemorrhage. There is the history of a missed period or two; there is intense pain in the lower quadrants of the abdo-

men; the face has an anxious expression; the temperature is subnormal and the pulse rate is much increased. Pelvic examination reveals a mass to one or the other side of the uterus. The patient is usually in too serious a condition to warrant any laboratory investigation and immediate operation is demanded. If, perchance, a diagnosis of acute appendicitis be made and operation performed a normal appendix and free blood in the abdomen quickly settles the question.

6. In perforation of a gastric or duodenal ulcer the onset is sudden with a sharp shooting pain radiating through to the back from the region involved. Shock is a prominent feature; the abdomen is distended; the liver dulness may be diminished. There is a history of previous gastro-intestinal disturbance. The temperature is not raised and where the shock is intense it may be subnormal; the pulse rate is increased. The condition of the patient is so serious that laboratory investigation is not warranted and abdominal section is imperative. On opening the abdomen free gas quickly settles the diagnosis.

In our experience the above discussed conditions are the important ones to be considered, but, as we have stated above, it is well to bear in mind that any acute abdominal disturbance may simulate or be simulated by acute appendicitis. For example: Acute pancreatitis, strangulated hernia, intestinal obstruction, intussusception and volvulus, movable kidney with torsion of its pedicle, ovarian cyst with torsion of its pedicle, and abdominal manifestations of erythema nodosum. An acute lesion arising outside of the abdominal cavity, for example a pneumonia, by having pain referred to the right side of the abdomen may stimulate appendicitis.

Where the case is not seen until an abscess has formed the signs, symptoms and blood picture are similar to those observed in the earlier stages of the disease, but they are not so marked. The temperature and pulse are those of a septic state and are governed, as is also the blood count, by the thickness of the limiting wall of adhesions. Where the wall is thick absorption is much lessened from the focus of infection and consequently the constitutional signs are not so active as where the limiting wall is thin, allowing free absorption. There is a well marked tumor formation in the right abdominal cavity and this may extend in any direction. The abdominal distension may be much lessened. The pain is limited to the area of the tumor. The nausea and vomiting will have disappeared. There may be lowering of the hemoglobin percentage on account of secondary anæmia.

In the diagnosis of appendicitis abscess the following are the important conditions to be differentiated:

1. Pelvic abscess.
2. Pelvic hematoma following the rupture of an extra-uterine pregnancy.
3. Perinephritic abscess and pyonephrosis.

In pelvic abscess the signs and symptoms of a septic process are present, but, in addition, there is the history of an acute pelvic inflammation. There is fixation of the uterus, which is pushed over to one side of the pelvis, and there is a swelling at one side, which causes a bulging down of the vaginal vault. The complement-fixation test is positive where the causative factor has been the gonococcus, and the importance of this reaction must not be underestimated.

In pelvic hæmatoma following the rupture of an extra-uterine pregnancy a tumor is present similar in character to that caused by a pelvic abscess, but it may extend high up into the abdomen. The presence or the history of a blood stained uterine discharge is important; and this may be slight in amount or copious, in fact, so copious as to endanger the life of the patient. If it be present a scraping from the endometrium may show typical decidual cells. Blood examination will show a marked lowering of the hæmoglobin percentage. Following a bleeding, and this may be small and repeated from time to time, there may be a leucocytosis, due perhaps to the absorption of fibrin ferment; this leucocytosis, however, does not rise so high as that occurring in an acute inflammatory process, and, moreover, it quickly subsides. If a secondary infection of the clot occurs, and this commonly happens, the signs become those of a true pelvic abscess. The Abderhalden test for pregnancy may be employed as an aid to a correct diagnosis.

As an illustration of this we give a summary of the case of Mrs. X. We were asked to see the patient, the diagnosis being intestinal obstruction arising in the course of an attack of typhoid fever. She had been ill three weeks. The chart showed an intermittent temperature. Two Widal reactions had been negative, no further laboratory investigation had been made. Examination of the abdomen revealed a large swelling occupying the right and lower quadrants of the abdomen. A diagnosis of abdominal

abscess, probably of appendicitic origin, was made. On opening the abdomen a few hours later a dark brown fluid of offensive odor gushed out. It was decided not to proceed any further at that time but to have a full laboratory investigation instituted at once. On inquiring more fully into the history of the case it was ascertained that she had had during the entire course of the disease an irregular blood-stained discharge from the uterus. Laboratory investigation revealed that the fluid contained pus, blood cells in all stages of disintegration, bacillus colon and bacillus pyoscyaneus. Blood examination showed a marked leucocytosis with a preponderance of the polynuclear cells, and a low hemoglobin percentage. Examination of the uterine discharge showed typical decidual cells. A diagnosis of extra-uterine pregnancy with a secondary infection of the blood clot was made, and operation proved such to be the case.

3. In perinephritic abscess and pyonephrosis the tumor formation is more marked in the posterior region of the abdominal cavity; the cæcum and colon are pushed forwards and to the center, and are resonant over it. Blood examination, temperature and pulse are those of a septic state. Examination of the urine usually shows it to contain blood cells, pus cells and bacteria. It is, however, quite possible to have a nephritic abscess with no urinary signs; this may happen where the abscess has become walled off from the surrounding kidney tissue. In addition to the above discussed conditions the following should be considered in the differential diagnosis: Abdominal tumors, innocent and malignant, tubercular lesions of the abdomen, subphrenic and hepatic abscesses.

In the diagnosis of chronic appendicitis, as in the diagnosis of the acute condition, the problem on the one hand may be comparatively a simple one, where there is a distinct history of one or more acute attacks, and on the other hand it may be very puzzling and only arrived at by the exclusion of other chronic abdominal conditions. The disease may simulate or be simulated by many of the chronic disturbances. In a typical case there is the history of one or more acute attacks. There may be localized tenderness and a tendency to some tightening of the abdominal muscles on the right side. Constipation and flatuency may be prominent symptoms. Blood examination is not likely to be of much help. The temperature and pulse are not as a rule much affected. Where tenderness does not seem to be present, deep massage in the right iliac fossa may elicit it.

Where the signs and symptoms are not typical the problem is often a very puzzling one. We shall not discuss the differential diagnosis in detail from other chronic abdominal disorders, but shall treat the subject in a more or less general way. We shall give a brief summary of certain of our cases as illustrations of the points at issue. As in the diagnosis of the acute forms of appendicitis the laboratory is of great importance in aiding us to arrive at a correct diagnosis in the study of chronic cases. A thorough X-ray investigation is also essential in a large percentage of the cases. Some of the most puzzling cases are those usually referred to the internist with a complaint of various neuroses or disturbances of the gastro-intestinal tract. Study of these cases demonstrates that the underlying factor in their causation is motor derangement due to reflexes arising in the neighborhood of the appendix.

In chronic appendicitis adhesions are formed which, by their location or by fixing the appendix in some abnormal position, may give rise to remote reflex symptoms. In the case of a mobile cæcum the appendix may occupy many different positions. Adventitious membranes in the neighborhood of the ileo-cæcal valve may give rise to obstruction at that point in a manner similar to that caused by adhesions.

In the case of a retro-cæcal appendix adhesions to the sheath of the ileo-psoas muscle may be provocative of pain or distress on walking. As an illustration of this we give a summary of the case of Mr. V.: The patient in the year 1907 had three attacks of acute appendicitis in the course of three months; these were brief in duration and quickly ended in resolution. Soon after the third attack he noticed that on walking quickly a dull ache arose in the right side and radiated down into the thigh, and that this was only relieved by lying down. No other acute attack arose, but in the course of a few months we removed the appendix, which was discovered retro-cæcal and retro-peritoneal, lying adherent to the posterior wall of the cæcum and the anterior sheath of the psoas muscle. In retro-cæcal appendicitis it is possible, where a low grade infection is present, to have an abscess formed without it being detected as such. As an illustration of this we give the summary of the case of Mr. B.: The patient had been suffering from a general disturbance of the gastro-intestinal tract for about a year, during which time he had steadily lost in weight, about 30 pounds. There was no history of any acute attack of abdominal trouble. Examination revealed a swelling in the right side apparently continuous with the right kidney. There was no tenderness in the costo-vertebral

angle. The cæcum covered it in front and was resonant over it. Blood examination showed a leucocytosis of 12,000 with 90 per cent. of polynuclear cells. Examination of the urine was negative. On account of the fact that most of the symptoms were confined to the gastro-intestinal tract and the absence of urinary signs the diagnosis of post cæcal abscess was made and operation revealed such to be the case.

In female patients the appendix may be adherent to the right ovary or tube. In such cases there are the associated signs and symptoms of chronic ovaritis or salpingitis or both, which, with those of the appendicitis are accentuated at the time of menstruation. The diagnosis here is very important on account of a possible future pregnancy. In the event of the patient becoming pregnant the stretching of the adhesions, as the pregnancy progresses, may lead to an interference with the blood supply of the appendix and excite an acute attack of appendicitis, which would prove a serious complication to the pregnancy.

Where a pelvic examination in suspected chronic appendicitis reveals a swelling to the right side of the uterus, whether it can or cannot be differentiated from the right tube, it is wise to consider the possibility of the presence of an extra-uterine pregnancy.

In male patients the pain or distress of chronic prostatitis may be referred to the region of the appendix and chronic appendicitis simulated. It is well, therefore, to make a rectal examination in all cases of suspected chronic appendicitis in male patients. In fact, one may say that a rectal or vaginal examination should be made as a routine thing in the examination of all abdominal cases.

In like manner to the above, chronic chest lesions may, in having pain referred to the abdomen, simulate appendicitis.

The value of X-ray investigation by a competent observer cannot be over estimated in the study of these cases. By it the position of the cæcum and its mobility or lack of mobility can be shown, and in some cases the actual appendix and its position outlined. It will also determine the presence or absence of obstruction at the ileo-cæcal valve. As an illustration of the importance of an exhaustive X-ray investigation we give a summary of the case of Mrs. D. of Montreal: The patient had been a more or less chronic invalid from gastro-intestinal disturbance for a period of ten years. The most prominent symptom had been gaseous distension with all its discomforts. Being a woman of means she consulted various eminent internists, both in this

country and abroad. Various diagnoses were made and various treatments instituted. During that period she had two or three acute attacks of abdominal pain; these did not last long and were regarded as attacks of intestinal colic. In December, 1912, she was referred by her physicians to Dr. Pirie of Montreal for an X-ray investigation of her abdomen. This investigation, as will be seen in the attached diagrammatic report (see pages 555 to 557), lasted over a period of about six weeks. He found that soon after the taking of a meal containing barium sulphate, the appendix was outlined and that it continued to be outlined throughout the course of the investigation. He gave it as his opinion that the patient was suffering from chronic appendicitis. Her physicians, however, did not consider the retention of the barium in the appendix of any clinical significance. Soon after this time she was referred to Dr. Allen A. Jones of Buffalo for diagnosis. Dr. Pirie's report was regarded as important and it was decided to remove the appendix after a careful study had revealed nothing of importance to account for the symptoms. During the investigation in Buffalo abdominal massage with special reference to the right iliac fossa had been employed; whether this was provocative or not, an acute attack of appendicitis arose. Operation was performed a few hours after the onset of the attack and revealed an acute gangrenous appendicitis, from which the patient eventually made an excellent recovery.

As further illustrations of the importance of X-ray investigation we give a report of Dr. A. W. Bayliss and a series of reproductions from plates by Dr. Leonard Reu.

DR. A. W. BAYLISS' REPORT OF THE CASE OF MR. LAND.

"After making X-ray examinations of Mr. Land at different times, I am led to conclude that he has chronic appendicitis with a ptosis of the colon. Thinking his an operative case, I am referring him to you for your opinion and, if you deem it necessary, for operation."

The attached reproductions are from plates by Dr. Leonard Reu, and are taken from a series of plates in the investigation of each case (see pages 558 to 562):

Case A, figure 1, shows the appendix arising from the posterior surface of the cæcum, running outwards to the right, bending back upon itself and passing behind terminates at the inner side of the cæcum.

Case B, figure 2, shows a long, slender appendix passing upwards and inwards in a tortuous course.

Case C, figure 3, shows that the bismuth in the appendix has become broken up into segments.

Case D, figure 4, shows the appendix to be angulated near its extremity.

Case E, figures 5, 6 and 7, shows the retention of the bismuth throughout a period of 465 hours.

Case F, figures 8 and 9, shows obstruction at the ileo-cæcal valve. This case refused operative treatment in Buffalo; a few months later, however, he was operated upon in New York for the relief of intestinal obstruction.

We are convinced from our experience that the retention of bismuth or barium by the appendix is of great pathologic significance, for we may take it with a reasonable amount of certainty that an appendix which becomes filled with bismuth during an X-ray investigation is in constant danger of becoming filled with fecal matter; the fecal material as long as it remains liquid or semi-liquid is not likely to cause more than a catarrhal appendicitis, but if it be retained and converted into fecal concretions, abrasions of the mucous membrane may occur and form the port of entry for any bacteria that may be present within the lumen of the appendix. The inflammation arising from an invasion of the deeper tissues of the appendix by bacteria may vary from a mild one to a gangrenous appendicitis.

THE TREATMENT OF ACUTE APPENDICITIS.

In discussing the treatment of acute appendicitis we shall deal with it in a general way, and shall not enter into any of the surgical problems met with during the operations for the relief of the disease, or into the complications which may occur during the course of it. The disease is essentially a surgical one and operation is demanded in a large percentage of the cases, and advisable in all cases, if not at the time of the acute attack at some subsequent date.

The question of the time of operation has been widely discussed. Many surgeons consider that the operation should be performed as soon as the diagnosis is made, irrespective of the duration of the attack. We are convinced, however, that no such sweeping statement holds in the treatment of acute appendicitis, and that each case must be considered on its own merits. As we have already pointed out in this discussion, there is a

tendency to localization of the infection by the formation of a barrier of adhesions; this protecting barrier is one of the most important factors to be considered in the treatment of the disease. In the earlier stages, before localization has occurred, the safe procedure, the diagnosis being established, is to remove the appendix. During the third and fourth days the decision is a trying one to determine; if there be signs of localization it is probably preferable to be conservative and await the formation of an abscess; if, however, the signs point to a progression of the disease and infection of the general peritoneal cavity, the removal of the infecting cause and drainage of the peritoneal cavity is demanded. After the fourth day one may take it as a more or less general rule that it is wise to pursue a course of masterly inactivity and await the formation of an abscess. In so doing we are convinced that more patients will be saved than lost.

Later on in the history of the case when the abscess has formed and becomes well shut off from the general peritoneal cavity, it should be carefully opened at its most prominent and dependent point and drained. If the appendix presents itself it may be removed, but it is not wise to make any extensive search for it, on account of the danger of breaking down the limiting wall of adhesions. If, during the convalescence, a fecal fistula forms, one need not be alarmed, as it will close usually of its own accord. We have come to consider that the forming of a fistula in these cases is a blessing in disguise, as it shows that the appendix has become disintegrated and will give no further trouble. It should be a rule to remove the appendix at a later operation in all cases, in which a fecal fistula does not form, as it is a continual source of danger to the patient.

Acute appendicitis occurring during pregnancy is, as we have stated above, a serious complication to the pregnancy, but operation, if deemed necessary, should not be delayed on that account. It is wise to be as gentle as possible, as traumatism may excite an emptying of the uterus. It is also wise to administer morphine both before and after the operation to lessen reflex stimulation of the uterine muscles.

The use of the laboratory is as important during the treatment as in the diagnosis, and we make it a rule to investigate the appendix removed and any pus, if present. At the end of twenty-four hours the character of the infection is known and cultures are ready for the making of a vaccine, which is always used when indicated. The determination of the infecting cause is also of importance in helping us in the making of a prognosis.

It is a well established anatomical fact that the lymphatic papillæ are much less numerous in the lower than in the upper abdomen, and that as a consequence lymphatic absorption is at a minimum in the pelvis. In all acute abdominal conditions it is wise to recognize this and place the patient in such a position that intra-abdominal drainage is directed towards the pelvis. Fowler's position fulfills the requirements in this respect exceedingly well. Instillation of salt solution per rectum by the Murphy drop method is very valuable, because free absorption of the normal saline from the colon into the general circulation takes place; this allays thirst, dilutes the toxins in the general circulation, lessens the damage to the kidneys in their excretion of the toxins and bacteria, possibly increases peritoneal secretion and dilutes the products of the inflammation. The combination of the Fowler's position and the rectal instillation of normal saline by the Murphy method is an exceedingly valuable one in the treatment of acute abdominal infections, irrespective of the question of operation. Where it has not been employed prior to an operation it should be instituted immediately afterwards.

The role of morphine in the treatment of acute appendicitis has been very much discussed and much can be said for and against its use. We are convinced that it is under proper management invaluable in certain stages of the disease. By masking signs and clouding the clinical picture it is a most dangerous drug to employ before the diagnosis is established and the line of procedure for the treatment is determined upon. If operation is decided upon it may be used to relieve pain and to tranquillize the patient; immediately following the operation the same holds good. Where at the operation general peritonitis is encountered, or even feared, morphine should be pushed to the physiological limit, in order to thoroughly splint the intestines, and in the worst cases to completely stop peristalsis in order to lessen absorption and localize the infection. The same holds good in those cases which are seen late, and in which it is definitely decided not to operate, but to await the localization of the infection and the formation of an abscess or abscesses; in these latter cases it is wise to put the patient on a water diet, apply ice to the affected side, and make no attempt to move the bowels; however, the long rectal tube may be employed to tap the gases in the large bowel. Any attempt to move the bowels only increases the danger of spreading the infection.

In the treatment of chronic appendicitis the removal of the appendix is the one important thing to be considered. The operation should not be unduly delayed on account of the danger of

a serious acute attack arising at any time. In those cases in which there are extensive adhesions causing obstruction at the ileo-cæcal valve, or elsewhere, it may be necessary to short circuit the ileum into the large bowel after the manner of Lane.

448 Delaware Ave.

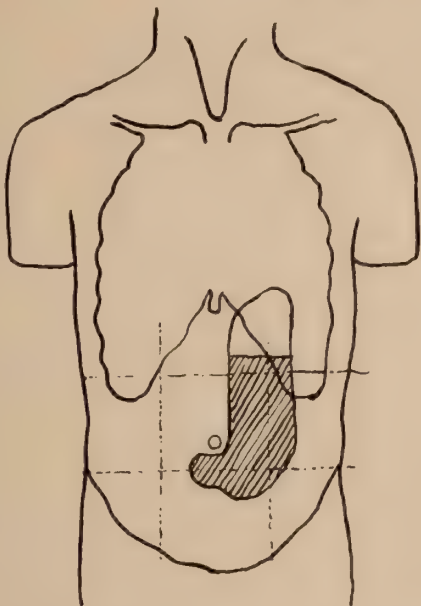
AFTER-HISTORY OF GASTROENTEROSTOMY FOR PEPTIC ULCER. Bourne (*British Medical Journal*) mentions the after-history of cases in which gastroenterostomy had been performed for ulcer of the stomach or duodenum. In the more recent cases there was an interval of at least 19 months between the operations and the inquiry as to the present conditions of the patient, while in the older patients more than five years had elapsed. Of the 92 cases of the series 68 have been traced. Of these, three have died in the interval. The total mortality of the operation, plus that of the uncured ulcer after operation, is 10.9 per cent. As to the results, nearly one-half the cases were in no way bettered. The operation was markedly successful in 43 per cent. and hopelessly bad in 38 per cent. The older the patient the better the outlook. The figures show that the result of operation depends very largely on the time after food at which pain occurs. This varies from immediately after the meal to one and a half hours, and in proportion as this interval is long, so is the prognosis good. Cases of duodenal ulcer as a rule do much better after this operation than cases of gastric ulcer. The degree of hyperchlorhydria is of importance, cases showing a total acidity of 0.2 to 0.3 per cent. reacting better than do those of a lesser percentage (0.12 to 0.19).

It will be noted that the mortality rate is high and the recovery rate low, as compared with the medical treatment but this may be because only severe and obstinate cases are operated upon. Why gastro-enterostomy should be employed for duodenal ulcer is scarcely apparent; if to relieve gastric acidity, other simpler means may be employed. 0.2 per cent. of HCl means about 50 degrees by the titration method, using decinormal alkali.

MYCOSIS FUNGOIDES. C. M. Cole of Caldwell, Idaho, *North-west Med.*, December, 1913, reports a fatal case, treated with X-ray and hypodermatics of sodium cacodylate.

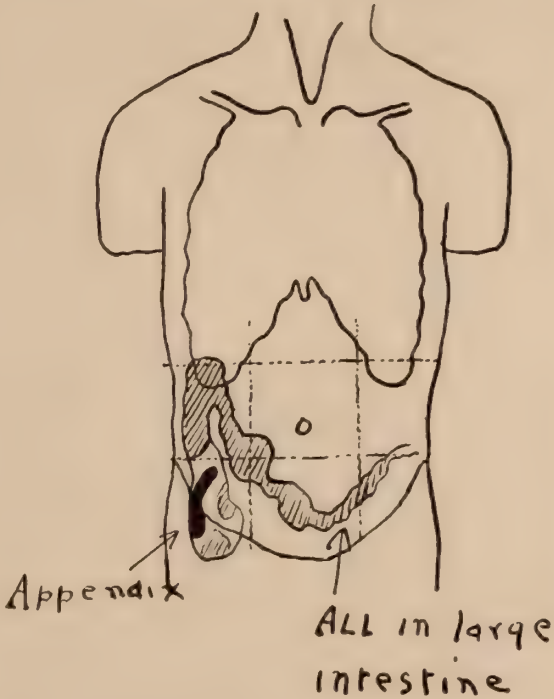
OPHTHALMIC TUBERCULIN REACTION. Jacob Gutman of New York, *Arch. of Diag.*, October, 1913, discusses this test and concludes that no danger has been observed, that it is as reliable as the von Pirquet test, and that it should not be abandoned.

Dec 2nd 11 A.M.



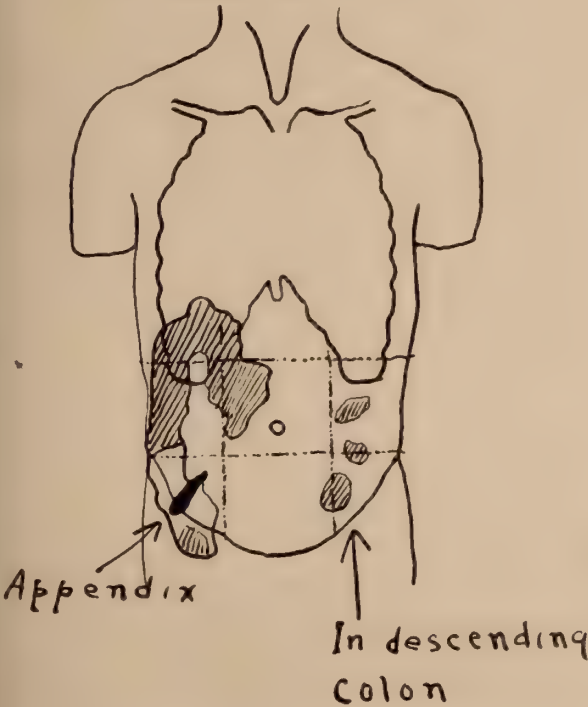
Much gas. Gastrophosis
Good peristalsis.

Dec 2nd - 10 P.M.

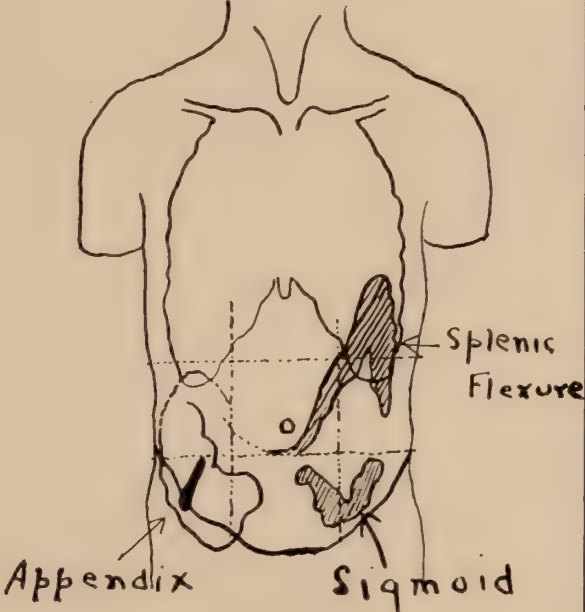


ALL in large
intestine

Dec 3rd - 10 A.M.

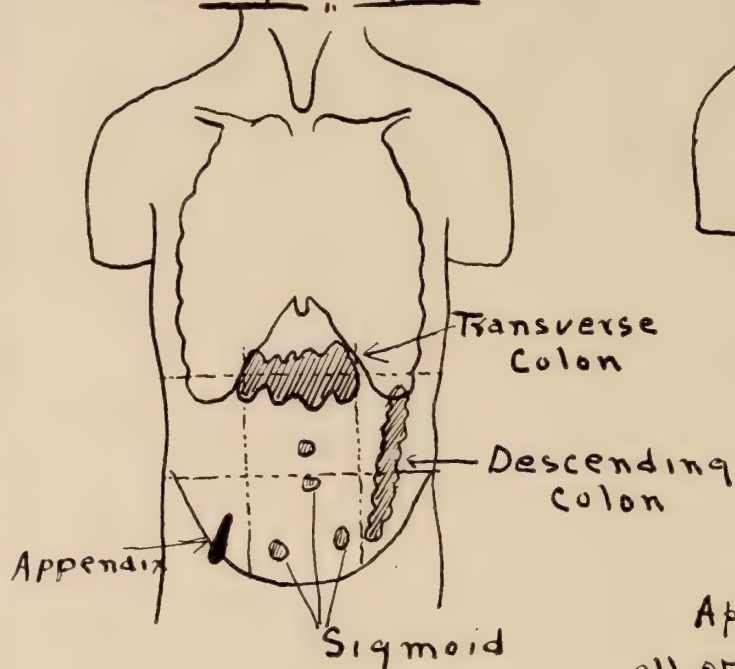


Dec 3rd 4 P.M.

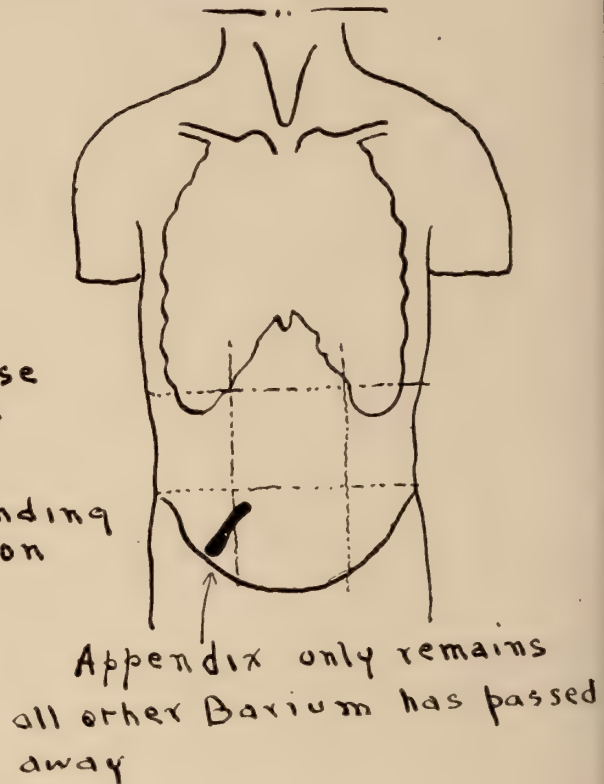


DR. PIRIE'S DIAGRAMS, 1-4.

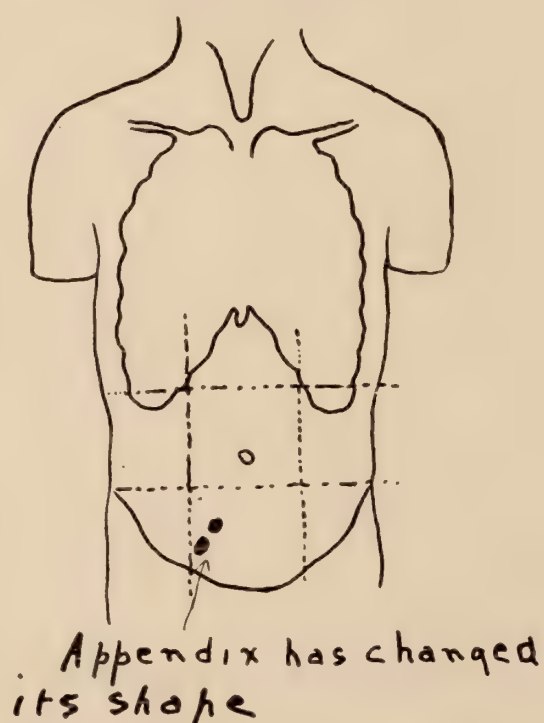
Dec. 4th - 945 P.M.



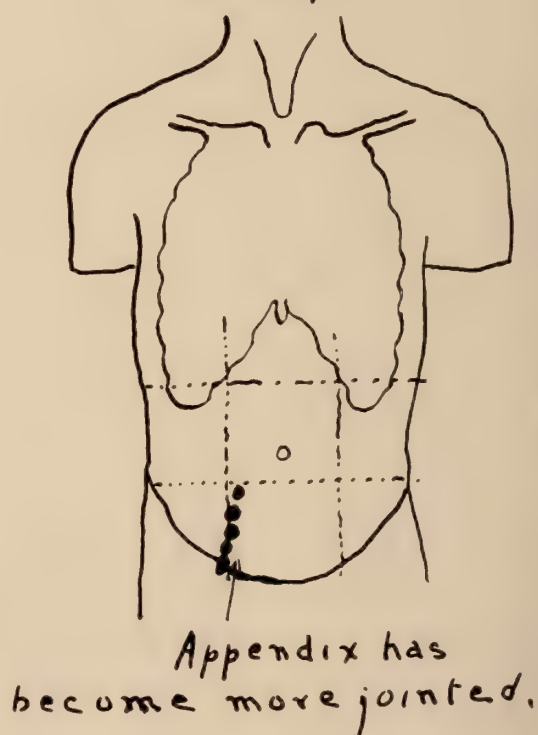
Dec. 5th

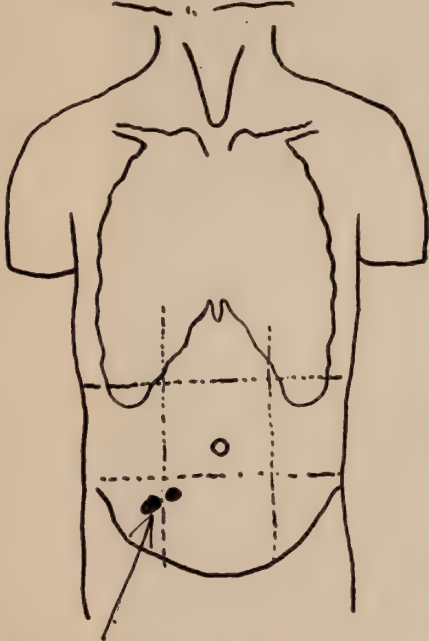


Dec. 7th

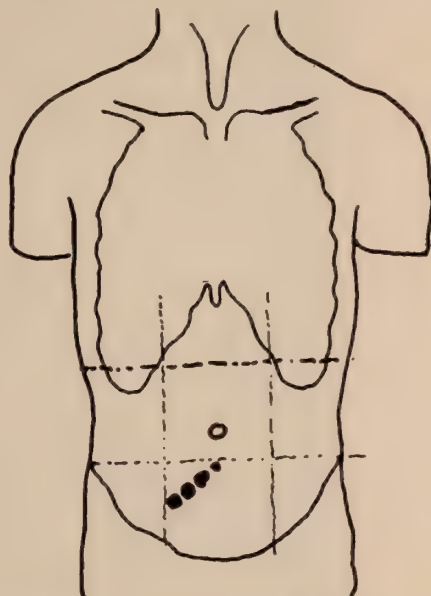


Dec. 9th

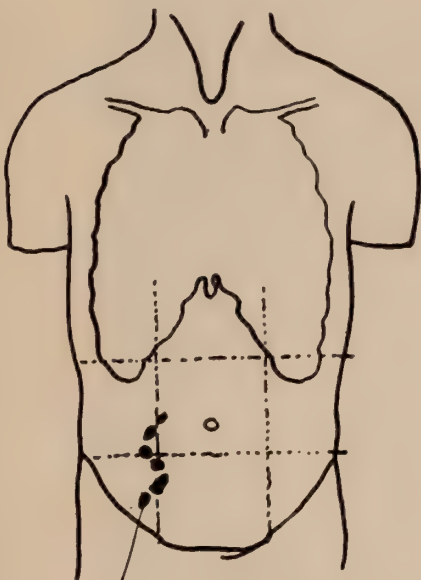


Dec. 11th

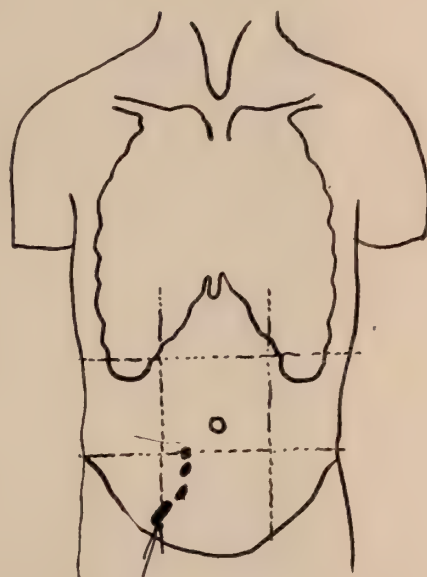
Appendix has changed
its position again

Dec. 11th

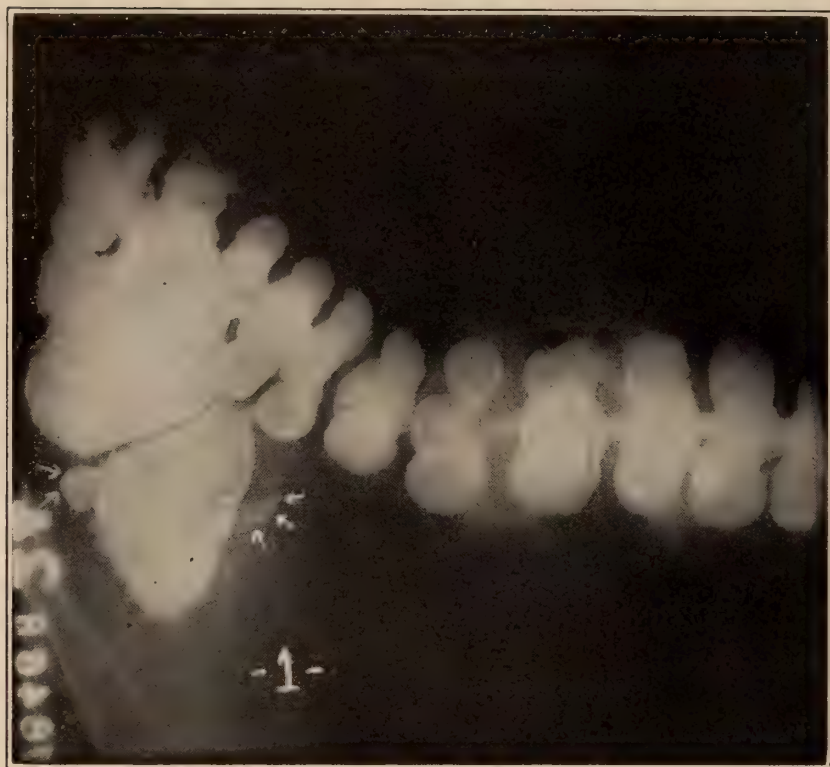
Appendix changed its
position 20 minutes after
former skiagraph was
taken.

Dec. 17th

Appendix

Jan. 14th

Appendix
contains little Barium



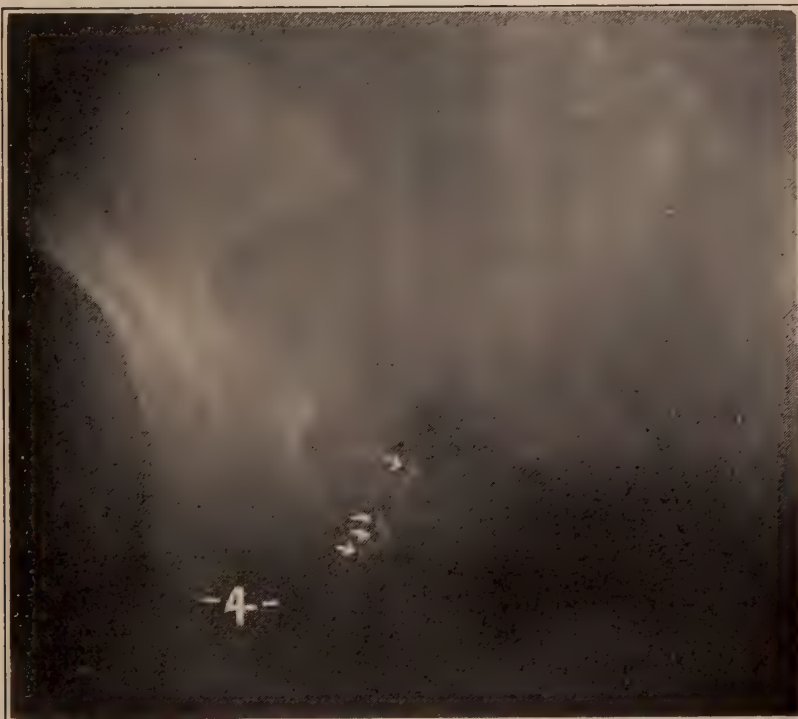
CASE A.—FIGURE 1.—SHOWS BISMUTH AT 24 HOURS.



CASE B.—FIGURE 2.—SHOWS BISMUTH AT 24 HOURS.



CASE C.—FIGURE 3.—SHOWS BISMUTH AT 6 HOURS.



CASE D.—FIGURE 4.—SHOWS BISMUTH AT 24 HOURS.



CASE E.—FIGURE 5.—SHOWS BISMUTH AT 24 HOURS.



FIGURE 6.—SHOWS BISMUTH AT 69 HOURS.



FIGURE 7.—SHOWS BISMUTH AT 465 HOURS.



CASE F.—FIGURE 8.—SHOWS A 6 HOUR RECORD WITH
A GREATLY DISTENDED SMALL INTESTINE.



FIGURE 9.—SHOWS THAT AT THE END OF 24 HOURS THE
SMALL INTESTINE IS STILL GREATLY DISTENDED.

BUFFALO MEDICAL JOURNAL

A Monthly Review of Medicine and Surgery

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APRIL, 1914

No. 9

Ipso Facto or Permanent Membership

It occurs to us that this question is at the root of most of the dissatisfaction and lack of harmony in the A. M. A. and its component branches—not that there is so terribly much of either. A large body of ipso facto members or fellows, or whatever they may be called, who have never expressed much personal interest in a society, who do not attend its meetings and who do not directly pay dues, cannot control that society, except by representatives who can not always satisfy the men who do take personal interest in it, who attend its meetings and pay dues. The representatives are nominally responsible to the former class who, obviously, can not direct them so that the responsibility amounts to nothing. Partly because of the very indirect method of electing representatives of representatives and partly because of the well known fact that a body cannot occupy two places at the same time, the delegates of the A. M. A. cannot, even informally, represent the actual, interested members. The latter, without necessarily objecting either to the delegates personally nor to what they do, naturally feel that they ought to have some control of proceedings, themselves. According to Dr. Lydston's view, the whole delegate method of control is illegal, though this requires further litigation. But if his present verdict is sustained, the A. M. A. is up against the problem of an enormous vote by mail or by proxy, which will give no greater satisfaction than the delegate method.

Discounting a few unusually large registrations mainly of casual attendants, the A. M. A. has a total voting strength at the meeting place of somewhere between two and four thousand, representing about double these figures as a genuine total membership. So far as we understand legal conditions, any voluntary organization in this country, of national scope, is a sort of orphan, unless it is adopted by some particular state, but we are

inclined to believe that some equitable way could be found to regulate membership, to allow some degree of popular debate and at least some approach to the principles of a pure or at least directly representative democracy, and that these provisions could be made without placing the whole organization in the light of a law breaker. The largest state in the Union, in population and in numbers of the medical profession, New York followed such a method for many years, not always with the harmony of unanimous satisfaction but with the wholesome inharmony of a minority that could express its opinions and hope to grow to a majority. The mere numbers of the real members of the A. M. A. are not so much greater as to render such a plan impracticable for itself. We doubt whether the support of state and national organizations is any more loyal under the present plan of ipso facto membership which carries no actual privileges. On the other hand, the securing of membership in the state and national organizations by passing through a waiting list period in which the principle test was one depending on actual interest, confers an honor which is permanent and which assures intelligent, active interest.

Every fair minded man will concede that there have been few actual abuses in the management of the national and state organizations. The unrest is due to a feeling of impotency on the part of the individual member, to the very human desire to do something one's self, to the American egoism that one has ideas of value that are worth expressing even if they are voted down. And the dissatisfaction is due partly to the fact that it is very difficult for a physician who is really interested in medicine to secure a voice in the management of his professional organization without sacrificing the opportunity to participate in the scientific features of a meeting. Yet he dislikes to feel that he is being managed by physicians who are not particularly interested in medicine, even if he admits that, on the whole, he is being managed in a very capable way. He gets to talking about medical politicians and a wheel within a wheel, and while these terms, even if literally correct, do not necessarily imply corruption or misuse of power or any other evil, they foment discord.

Turtle Tuberculin

It is natural that, after the enthusiasm and prolific press reports of the Friedmann treatment, there should follow a period of apathy. But the main consideration is not loss of novelty, not disgust with commercialism, not even the fact that the Friedmann treatment failed to make good. The essential thing is whether the hint received from Friedmann will lead to practical

results. Piorkowski began studying chelonic tubercle bacilli in 1903. He has recently claimed to have produced an efficient chelonic tuberculin. Friedmann contended, without claim of originality, and with considerable authority, that a non-virulent, living bacillus, and not an extract or dead bacillus, must be looked to for hope of efficient immunization. This general claim has been denied. Drs. J. W. Beattie and E. E. Meyers (*N. Y. Med. Jour.*, September 13, 1913) report very encouraging results from turtle tuberculin. At any rate, it is worth while, to continue searching for some specific treatment for tuberculosis; to thresh out the question between immunization by non-virulent strains and by chemic products of the bacillus; and, in particular, to settle the availability of chelonic strains, among others, in either of these directions.

FAILURE NOT NECESSARILY AN INDICATION OF WORTHLESSNESS

This title was not taken to point a hopeful moral to discouraged individuals though, in passing, we may suggest that success consists largely in hanging on. It is said that the late D. Hayes Agnew made a failure of medicine, went into the coal business and later returned to practice and, as is well known, was signally successful in every sense. Very few men, retiring prematurely from medical practice or any other line of work, can claim to have made a success. On the other hand, almost every man who has persisted in any line of work, to the end, can fairly claim to have been measurably successful. If we stop to think about it, success means doing better than 95 per cent. of our competitors, and not more than 5 per cent. of us can do this, though a considerably larger percentage claim to have accomplished this desirable result.

What we started to say was that, under present conditions, any new discovery or "method" or "system," medical or otherwise, that attracts much attention, either explicitly or implicitly, claims a degree of efficiency far beyond the average. Only a small percentage can be highly successful. Yet the fact that a discovery or method fails to satisfy the hopes aroused at the outset, does not, by any means, prove that it is worthless. Morphine, digitalis, salicylates, or a dozen other drugs held in the highest esteem by 99 per cent. of the profession would prove failures if heralded as new discoveries and as sure cures for the conditions to which they are almost unanimously considered applicable. We hold no brief for the Friedmann treatment but, merely to illustrate the point, it may be said that any one of these justly esteemed drugs would have failed if tested, for a few months, under conditions fairly comparable with those to which the Friedmann vaccine was

subjected. Do not misunderstand this statement to mean that we are courting unpopularity by supporting Friedmann at this late day. But let us not forget that the only test of worth, except in very occasional and exceptional revolutionary discoveries, is that obtained after several years by a great many independent investigators, and that we must consider not the results in unfavorable cases, not phenomenal cures, but moderate and even temporary mitigation of evils.

Immodest Dress

A good many of our contemporaries, lay and medical, are incriminating the modern fashions of dress as tempting to immorality. In particular, respectable women are denounced for making displays which a modest man would consider abnormal except among the demi-monde. Much the same diatribes have appeared in the past, about other fashions, new in their time, and we need not consider whether we can remember these diatribes personally or whether we learn of them from history, more or less ancient. At first thought, we are inclined to agree with these denunciations. But, on more critical consideration, we are impressed with the inconsistency that fashions that revealed have been subjected to equally scathing remarks with those that concealed. The Mother Hubbard gown and the bustle, for instance, have been as strongly denounced on the ground of immodesty as tight-fitting garments. A cynical remark, which may have been the work of a professional humorist seeking the two-dollar fee for a joke, or which may have been genuine, is worth considering. A girl, asked as to whether she did not consider her dress less modest than her mother's at the same time of life, replied in the negative, saying that the modern girl associated less indelicacy with her knees than the one of the past generation did with her ankles. This reminded us that an old lady had once said that, when she was a girl, it was considered immodest to display the ears—an explanation of the curious hair dressing seen in daguerreotypes that was new to us. It certainly is an advance toward true morality to eliminate any sense of sexuality from the ears and, if we consider the matter impartially, there is no particular reason why such aggregations of bone, muscle, etc., as the legs should be concealed by either sex, or why they should not be mentioned or even complimented in the same spirit as the arms, neck, or the parts of the face. Of course, it may be argued that we must draw the line somewhere, but a comparative study of customs in dress shows no special connection between concealment and morality, unless it be to support the contention that the nearer we approach to nakedness the more moral a race becomes.

Mystery and Fetichism

One of the most disgusting—and one might almost say, amusing—phases of sexual perversion is fetichism. Yet, it is common in quite an innocent form. Consider the literature of a certain type, that has crystalized about a lady's glove, her handkerchief and, with only mild impropriety, about even her garter, stocking or corset. Prevailing fashions and customs have tended to remove the mystery from femininity in many ways. Romantic fetichism is apparently not so prevalent as formerly. Who, for instance, could become sentimental about an apparatus of elastic and metal, whose mechanic advantages are illustrated in street cars; or about undergarments which are pictured every day in the papers, with prices, and many of which are only partially concealed beneath the outer covering which represents what used to be called a dress? A good deal of the finer chivalry has been lost, but, with it, there has passed a lot of sentiment and immature eroticism. Perhaps the somewhat startling candor of the present will establish new standards of propriety and, after the readjustment, we will find that our social life has become more sensible and wholesome.

To the Members of the Medical Society of the State of New York

The BUFFALO MEDICAL JOURNAL heartily endorses the invitation of the Medical Society of the County of Erie, that the State Society should meet in Buffalo in 1915. The precedent of holding at least occasional meetings at other cities than the Capital has already been established. It stimulates local interest, adds both to the attendance and the membership of the State Society and it is of interest to members from a distance. There is no danger that this plan will waive in any degree the claim of the Society to being an official part of the legal organization of the State. It is neither becoming nor necessary for a host or his representative to praise his home and its furnishings. Suffice it to say that Buffalo is readily accessible—and, for a larger number of the profession than any other city except the Metropolis, quickly accessible—that it can assure adequate accommodations, both as to hotels and meeting places, and that it possesses many points of interest, professional and otherwise.

We also endorse, editorially, personally and as a member of the State Society, the candidacy of Dr. Grover W. Wende for President. Owing to long personal friendship and professional acquaintance, and to the association of Dr. Wende with this JOURNAL, it would be still less becoming, as it is still less neces-

sary to justify this endorsement. Dr. Wende, both professionally and on account of his devotion to the cause of medical organization, is a logical candidate, irrespective of the place of meeting of the Society. The acceptance of the invitation to meet in Buffalo renders it both natural courtesy and a practical convenience to select for the Presidency a local man, and Dr. Wende is the unanimous choice of the County Society.

And we just can't help adding that he is one of the best fellows who ever grew up in western New York.

TOPICS OF PUBLIC INTEREST

Infant Hygiene

According to the Seventh Annual Report of the New York Milk Committee, just issued 41,000 baby lives have been saved in New York City by the systematic welfare work carried on during the last seven years by co-operating public and private agencies. During that time 950,000 babies have been born in New York City. If the infant death rate of the five years previous to the beginning of this work had prevailed there would have been 150,000 infant deaths instead of the 109,000 which actually occurred. On the other hand, if New York's low death rate of 1913, i.e., 101.9 per 1,000 births, had prevailed throughout the seven-year period, only 96,000 babies would have died out of the 950,000 born.

The Committee points out that this record is not due to favorable weather conditions nor to other general accidental causes. Chicago, Philadelphia, Cleveland, St. Louis, Pittsburgh, Detroit, Buffalo, New Orleans and Toledo, all show an increase of deaths in 1913.

Another important step taken by the Committee, during the year, was the calling together of representatives appointed by the Governors of the eastern and middle states to discuss the question of uniform state regulation of the milk supply. Control bills were introduced in several states. The bill introduced in the New York State Legislature, while defeated by a small margin, aroused so much public sentiment that it will be reintroduced this winter, with strong prospects of success.

The Committee also held a conference to consider a method of fixing the market price of milk to the producer.

In systematic education of mothers in matters pertaining to feeding, hygiene and sanitation, the Committee's most important achievement during the year was the completion of its comprehensive experiment in the prenatal education of 3,300 mothers. In this experiment the stillbirths and the deaths under one month were reduced approximately twenty-five per cent. (25%). This

work was carried on by visiting nurses in the homes of the expectant mothers.

The Committee also began a demonstration with a public Health Center which it believes will revolutionize methods of carrying on public health work in general, and infant welfare work in particular in large cities.

During the year the Milk Committee has given medical advice and attention at its centers to 8,088 mothers and babies. It has instructed mothers in their homes through 26,650 visits made by physicians and nurses. It has printed and distributed 300,000 educational circulars and 16,500 booklets and other educational matter.

NEW BUFFALO APPOINTEES. Dr. Andrew C. Callahan, City Physician, first district, \$500, vice Dr. Harold J. McDonald, temporarily appointed Diagnostician. Also Dr. Charles S. Meahl, temporarily appointed Diagnostician, \$2,000. John H. Stackhouse, D. D. S., temporarily appointed Dental Inspector, also Raymond J. Sandman, D. D. S., \$500. Dr. Francis Argus, interne, Ernest Wende Hospital, \$900. The temporary appointments have been made for newly created positions, in anticipation of civil service examinations.

The duties of the Diagnosticians are recited by the Health Board to be as follows:

To investigate all sudden deaths, not due to accident or violence, which are investigated by the county medical examiner, in accordance with the State law; to investigate all deaths where there is a question of diagnosis, cause unknown or where the cause of death is unsatisfactory, where no physician was in attendance or where the physician is out of town and no certificate can be obtained.

They shall also investigate all cases of skin diseases when requested to do so by any physician; they must investigate every case of chicken pox reported to the department of health; shall investigate all exposures to small pox; lift all small pox quarantines; enforce regulations governing small pox, and shall supervise all disinterments.

They shall also take cultures of people suffering from diphtheria who are unable or unwilling to have medical assistance at their own expense, who are not in the category of poor or needy and require the assistance of the city physician.

They will be on duty subject to call day and night and will be attached to the bureau of vital statistics.

Automobile Notes

CAPACITY OF HORIZONTAL CYLINDRIC TANK. The general problem is to determine the area of segments of a circle, the whole

circle being multiplied by the long axis of the tank to find the volume of the cylinder. If the total contents of the tank are known, as is usually the case, the circle may be assigned a value corresponding to the volume of the cylinder. The known quantity is the depth of gasoline, as determined by sounding. This is the versed sine of half the arc subtended. The semi-diameter of the circle, minus this depth is the cosine, from which the arc may be obtained by a table of natural or logarithmic sines and cosines. The segment consists of the corresponding sector minus the empty triangle above. The sector is a fraction of the whole circle, corresponding to 360 degrees divided by the number of degrees in the arc subtended (double the arc or angle obtained from the versed sine). The empty triangle is the product of the sine and cosine of the half-arc. As the former is a relative quantity, the latter an absolute, they must be reduced to the same basis for subtraction, remembering that the total value of the circle is 3.1416 times the square of the radius.

By slide rule, the following nearly exact values have been found for ten-gallon tanks, with a ten-inch diameter, by half inches of depth of gasoline. The formulæ may be generalized by reading inches as tenths of any diameter and amounts of gasoline as parts of the total capacity, moving the decimal point one place to the left. For example: 3.5 inches, 3.127 gallons becomes 0.35 (35/100) of diameter corresponds to 0.3127 of the total capacity.

0.5 inch.....	0.173 gallons	5.5 inches.....	5.686 gallons
1. inch.....	0.48 gallons	6. inches.....	6.265 gallons
1.5 inch.....	0.96 gallons	6.5 inches.....	6.873 gallons
2. inch.....	1.43 gallons	7. inches.....	7.425 gallons
2.5 inch.....	1.958 gallons	7.5 inches.....	8.042 gallons
3. inch.....	2.575 gallons	8. inches.....	8.57 gallons
3.5 inch.....	3.127 gallons	8.5 inches.....	9.04 gallons
4. inch.....	3.735 gallons	9. inches.....	9.827 gallons
4.5 inch.....	4.314 gallons	10. inches.....	10. gallons
5. inch.....	5. gallons		

The following proportions, worked out in a slightly different way may also be of interest:

Exactly $\frac{1}{4}$ of diameter.....	approx. $\frac{1}{5}$ of bulk
Exactly $\frac{1}{2}$ of diameter.....	exactly $\frac{1}{2}$ of bulk
Exactly $\frac{3}{4}$ of diameter.....	approx. $\frac{4}{5}$ of bulk
Approx. $\frac{1}{7}$ of diameter.....	approx. $\frac{1}{10}$ of bulk
Approx. $\frac{6}{7}$ of diameter.....	approx. $\frac{9}{10}$ of bulk
Approx. $\frac{3}{8}$ of diameter.....	approx. $\frac{1}{3}$ of bulk
Approx. $\frac{5}{8}$ of diameter.....	approx. $\frac{2}{3}$ of bulk

VITAL STATISTICS OF NEW YORK STATE, WITH SPECIAL REFERENCE TO RURAL MORTALITY. The New York State Department of Health gives the following statistics.

	Death rate per 1000 population	
	1912	1913
Greater New York.....	14.1	13.7
Rest of State.....	15.5	15.7
Death rate of cities outside of Greater New York	15.7	16.1
Rural death rate*.....	15.3	15.4
Whole State	14.8	14.7

*Places under 8,000 population.

Total deaths and death rates from principal causes were as follows:

Cause of death	Total deaths	Death rate per 100,000 population	Percent- of all deaths
Pulmonary tuberculosis...	13,811 (13,716)	139.7 (142.9)	9.5 (9.6)
Bright's disease.....	10,430 (10,613)	105.4 (110.5)	7.1 (7.5)
Lobar pneumonia.....	9,302 (9,560)	94.1 (99.5)	6.4 (6.7)
Accidents	8,512 (8,130)	86.1 (84.6)	5.9 (5.7)
Cancer	8,528 (8,250)	86.2 (85.9)	5.9 (5.8)
Diphtheria	1,854 (1,624)	18.7 (16.9)	1.27 (1.1)
Old age.....	1,686 (1,795)	17.0 (18.7)	1.16 (1.3)
Typhoid fever.....	1,018 (1,128)	10.3 (11.8)	0.7 (0.8)
Scarlet fever.....	837 (789)	8.5 (8.2)	0.57 (0.55)
Measles	1,071 (1,050)	10.8 (10.9)	0.73 (0.74)
Whooping cough.....	818 (683)	8.3 (7.1)	0.56 (0.48)
Erysipelas	497 (532)	5.0 (5.6)	0.34 (0.37)
Meningitis—epidemic	312 (333)	3.2 (3.5)	0.22 (0.23)

Figures in parenthesis are for 1912.

Thirteen diseases—40.35 per cent. of all deaths.

We have been much impressed with the fact that, in recent years, the mortality of cities has diminished so as to show a lower death rate than the country. This is a logical result of co-operative sanitary measures in cities and the persistence of lack of plumbing, facilities for drainage from privies and barnyards, pig styes, etc., into wells, exposure to cold and damp and to accidents, poor diet, etc., in the country. But, as we pointed out last year the highest death and disease incidence are usually found in the small towns and villages. It occurred to us to calculate the death rates for "the rest of the county," after explicit mention of cities and certain villages in the health reports and the result has been somewhat surprising. It should be remembered that the rural districts in census and these health reports include villages of less than 8,000 population, and it is scarcely necessary to point out that, either in the social or by the hygienic sense, a village of more than a few hundred is a very different institution from a farming community. Even "the rest of the county" does not consist of open country, but it comes nearer the true conception of a rural district than the definition adopted in vital statistics.

Suffolk	23.99	Ulster	13.72
Westchester	17.19	Clinton	13.32
Albany	13.72	Essex	16.59
Columbia	14.07	Franklin	14.61
Dutchess	19.68	Erie	12.82
Green	15.21	Monroe	13.60
Orange	11.42	Niagara	12.51
Putnam	12.00	Orleans	12.89
Rensselaer	15.43	Oswego	17.35
Rockland	11.39	Wayne	13.17

Even with a table of logarithms, such calculations are tedious, and, as we may recall from our school days, New York has an unreasonably large number of counties. We have not taken the trouble to make the full computations, but have taken the first and last parts of the State list as they run. This ought to make a fair basis for comparison. Suffolk, Westchester, Dutchess, Essex and Oswego counties show high death rates, for which we are inclined to believe local factors, probably involving village sanitation and the inevitably high mortality of asylums of various kinds, may be adduced as explanation. For the typic rural parts of counties, even without being able to exclude villages, the mortality is decidedly low. Facts are better than theories. We trust that, since the hygienic and sanitary factors of the real country, the small town and the large city involve distinct differences, future statistics may show the conditions as they actually exist.

TWELFTH INTERNATIONAL OPHTHALMIC CONGRESS AND ANTI-SEMITISM.—Prof. Julius Hirschberg, President of the Berlin Ophthalmologic Society, is in correspondence with various constituent societies of the congress, in an endeavor to induce both Jews and Gentiles to signify their intention not to attend the Congress.

“The ministry of the interior has given consent to the free admittance of the Jewish members of the congress, but prescribes that there shall be put upon the pass of each such member by the central bureau in St. Petersburg a notation with regard to the length of time the holder is permitted to live within the boundaries of the empire. The last date for the sojourn of such members in Russia will probably have to be September 15, with which date, moreover, the excursion rates for the trip to the congress also end.”

We do not blame the Jewish members of the Congress for feeling offended at the Russian attitude, and it might, perhaps, lead to a revision of Russian sentiment and even law, if an influential body of scientific men, of all nations and various races and religions, took this method of reminding Russia that it has not caught the spirit of liberality of modern civilization.

However, as a matter of fairness, there is something to be said on the other side. The Jews should remember that European—including American—civilization is only about 1500 years removed from bronze age savagery, whereas they themselves are at least four times and possibly ten times as far away from this stage of development. Without substituting one form of race prejudice for another, the fact remains that different races have progressed at very different rates. For example, some of the Australian aborigines are said to be still in the palæolithic stone age. In the last twenty or thirty centuries, the Aryan races have, on the whole, not only distanced all competitors, but have passed, quite rapidly, many races originally far ahead of them. Not all Aryan races have made equal progress even with the mutual assistance of the last few centuries. Whether the Russians are essentially Slavs or not and whether the Slavs are a branch of the Aryan stock or not, the fact remains that Russia is, in many respects, two or three centuries behind the average European nation in conceptions of social government. From its own standpoint, Russia has made a concession to the Jewish members of the Congress, and while this concession is itself an insult from the standpoint of the 20th century in America and western Europe, it does not involve any practical hardship, and it is probably a favor extended in good faith from the point of view of the average Russian. It seems to us an open question whether the Congress should be broken up as a protest against an inevitable unevenness of world progress or whether a wiser policy

would be for both Jews and Gentiles to attend, thus affording a timely, present object lesson in the good work accomplished by the former race and of the mutual esteem and harmony engendered by co-operation without regard to race.

COMPARATIVE DANGER OF VEHICLES. Chicago statistics, while confirming the popular opinion that more accidents have been due to automobiles than to horse-drawn vehicles, of late years, show that the street car, in spite of its being confined to a known track, is still more deadly, and that in relation to efficiency, in the last four years, up to January 1, 1914, motor vehicles have caused the lowest amount of accident and death.

	No.	Av. daily mileage.	T'l daily mileage.
Horse vehicles	65,118	12 miles	781,416
Power vehicles	37,406	42 miles	1,571,052

Average of accidents in four years:

	T'l accid's 1910 to 1914.	Accid's per day	Ave. accid's per 5,000,000 miles.
Horse vehicles	6,047	4.15	26.55
Power vehicles	5,784	3.96	12.6

Accidents reported to police department:

	Street railway.	Horse vehicle.	Power vehicle.	Total per year
1910	3,969	1,596	998	6,563
1911	3,664	1,561	1,153	6,378
1912	4,106	1,507	1,604	7,217
1913	4,283	1,383	2,029	7,695
Totals	16,022	6,047	5,784	

Coroner's cases or fatalities:

	Street railway.	Horse vehicle.	Power vehicle.	Total per year
1910	175	67	52	294
1911	161	75	75	311
1912	209	49	96	356
1913	165	44	136	345
Totals	710	235	361	

AUTOMOBILE CENSUS. It is estimated that, in 1913, there were 1,128,000 automobiles owned in the continental United States. The population, at 2 per cent. increase per annum since 1910, would be about 97,400,000. The ratio is one automobile to 86 persons, or one to about 13 average families. There were more than twice as many automobiles as there were incomes reported beyond the exemption limit. Of course, many rich families own several and many automobiles are commercial, but the fact remains that a great many persons keep automobiles who cannot afford them, and this undoubtedly has an influence on the cost of living and the general complaint of hard times.

HONEST GASOLINE. Alderman Burley of Buffalo has introduced a resolution for the preparation of an ordinance requiring dealers in gasoline to state its test and to subject them to inspection by the city inspector of oils, and to a penalty for misrepresentation.

SMALL POX. On March 2, a Lehigh Pullman porter was found to be infected with small pox. He was sent to the isolation hospital and the car was disinfected.

NEW YORK SKIN AND CANCER HOSPITAL, Second avenue, corner 19th street. Clinical lectures at 4.15 o'clock. Syphilis, by Dr. Bulkley. April 1, Primary Lesions, Genital and Extra-genital—Innocent Syphilis; April 8, Early Manifestations of Syphilis; April 15, Late Manifestations of Syphilis; April 22, Marital and Hereditary Syphilis; April 29, Treatment of Syphilis. Cancer, by Dr. William Seaman Bainbridge. April 30, Some Practical Phases of the Cancer Problem. The lectures will be illustrated by cases, models, colored plates, photographs, etc. The course will be free to the Medical profession, on the presentation of their professional cards.

CONVICTION OF ABORTION. Dr. Alice Gertrude Sharon of Batavia has been sentenced to 1-1½ years in Auburn prison, on account of the death of a patient on September 25. She declared her innocence at the time of the sentence.

TYPHOID EPIDEMIC. St. John's, Iberville and Sabrevois counties, Quebec, have an epidemic of rather mild typhoid, though several deaths have occurred. Of a total population of 7,000, over 2,000 have been infected. Many of the Royal Canadian Dragoons have contracted the disease. We hope to have a more detailed account from Associate Editor Dr. J. George Adami in the next issue.

TAME PHYSICIANS IN DRUG STORES. The New York County Medical Society has won a preliminary victory in a crusade against drug store practice of medicine, even when the store employed a physician. Such a physician, arrested as violating the present State law, obtained a writ of habeas corpus, which was dismissed on argument in the Supreme Court. The druggists, however, expect to carry the contention to the Court of Appeals. While our sympathies are strongly in favor of medical ethics, it occurs to us that the druggists may eventually win this fight, as, otherwise, the law would be assumed to dictate the location of physicians' offices in general and the terms on which they carried on business.

PERMANENT HOME FOR COLLEGE OF SURGEONS. The American College of Surgeons has already taken up this matter. New York, Boston, Cleveland, Washington and Minneapolis are mentioned as sites, Chicago to be avoided because the headquarters of the A. M. A. are there.

CANCER IN X-RAY TUBE WORKERS. In 1906, John L. Bauer, a glassblower employed by Henry Green, a pioneer X-ray tube manufacturer of Hartford, died of cancer. On March 4, 1914, Mr. Green died of cancer of the liver. Cancer apparently due to exposure to X-rays and radium emanations, etc., is fairly frequent. However, 6-9 per cent. of all deaths at ages over 45, occur from cancer, so that it is wise to study statistics carefully before reaching a conclusion. And it is equally wise to be careful in the use of these emanations till the statistics are accurately compiled.

TUBERCULOSIS HOSPITAL FOR CHILDREN. \$125,000 bond issue has been approved by the Buffalo Councilmen for erecting a special children's hospital in connection with the J. N. Adam Memorial Hospital at Perrysburg. The new building is to accommodate 100 cases, equally divided between pulmonary and glandular.

SEX HYGIENE. Supt. Henry P. Emerson of Buffalo has declared against teaching sex hygiene in the public schools.

TAPE WORM AS AN OBESITY CURE. The *Journal of the N. A. R. D.* prints a story to the effect that *tænia larvæ* have been found in certain high-priced obesity capsules—a case of the cure being worse than the disease.

NEW TRAFFIC LAWS. After considerable opposition, Buffalo has prepared an ordinance requiring all vehicles to carry a light after dark. A similar law applies to the State, except that vehicles used mainly for carrying hay and straw are exempt. In Buffalo, searchlights must not exceed twenty candle power. All vehicles must stop for passengers boarding or leaving street cars unless there is a ten-foot clearance from the platform. Material, such as pipes and lumber, projecting beyond a wagon box, must be marked by a red flag by day, by a red light at night. Automobiles may stand for an hour on down-town streets and for an indefinite period elsewhere. All of these points have been specifically advocated in this JOURNAL as matters of life-saving importance.

We venture to make one suggestion further: If we were a pedestrian on an automobile route at night, we would walk on the left side of the road, so as to be able to see an approaching vehicle. The special reason is this: An automobilist, passing another automobile which carries bright head-lights, cannot see a dark object in front of him.

RATIO OF MEDICAL STAFF TO PERSONNEL IN ARMY AND NAVY. The U. S. Army has a total of about 85,000, with about 600 surgeons; the Navy, 51,000 with 325 surgeons—the respective ratios being about 1:140 and 1:160. In civil life the ratio, allowing only for physicians actually in practice, is about 1:700. It should be remembered that the army and navy must provide for sudden demands of warfare and epidemics and that the duties of medical officers include much hygienic instruction, executive work, and, for a considerable number, more or less special details for teaching and receiving instruction, research work, etc. Approximately one per cent. of the entire medical profession of the country is employed in the army, navy, marine corps and public health service. About the same proportion is employed in various civil service positions. It is probably a fair estimate that 5 per cent. of the entire profession is at present employed on contract by various branches of the National, State and local government.

SURGEON GENERAL OF THE NAVY. Medical Inspector Wm. C. Braisted has been promoted to succeed Charles S. Stokes, retired. Dr. Braisted was born in Ohio, October 9, 1864, and was appointed to the Navy in 1890.

INDEX OFFICE. Under this title, a bureau has been organized in Chicago to prepare bibliographies, translations, abstracts, etc., to secure illustrations for literary work and to bring investigators in touch with others interested along the same lines. Address Aksel G. S. Josephson, Secretary, 31 W. Lake St., Chicago.

THE BUFFALO CHAMBER OF COMMERCE, through Mr. Henry B. Saunders, Commissioner of the Convention Bureau, thus cordially supports the invitation of the local profession to the State Society:

"Buffalo leads the world in its equipment for the proper care of conventions, and no other city combines so many conveniences and attractions. Buffalo is the only city which has two fine halls municipally owned and open for worth-while conventions, and they have become an invaluable asset in bringing large gatherings here, so that Buffalo, in the past three years, has advanced into the front rank of convention cities, entertaining more national and international state and interstate gatherings than any except a few of the larger cities.

At the annual meeting of the Medical Society of the State of New York, in New York City, April 28-30, invitations will be extended by the city, through Mayor Fuhrmann, the Chamber of Commerce and the Medical Society of Erie County, asking the State Association to come to Buffalo for its annual meeting in 1915, and it is expected that the invitation will be accepted.

It has occurred to several local members that because of our unusual facilities the Buffalo convention of 1915 might be made the occasion of a great commercial exhibit of surpassing interest to the members of the profession and valuable to manufacturers and dealers. Either of our two splendid convention halls would be available for this purpose. Elmwood Music Hall would afford an ideal setting for such an exhibition, but it might prove that the Broadway Hall would be needed, because it has much more space available. The Broadway Hall was rebuilt especially for exhibition purposes and is the best equipped show building in the United States. It is exceptionally well lighted by day or night, and conduits have been laid under the floor, with outlets on 25-foot centers, so that electric power is available under almost any arrangement of booths, doing away with dangerous and unsightly overhead installations.

It might appear that the 50,000 square feet of space on the main floor of this building would be too large for the proposed exhibition, but this is not the experience of other organizations which have used the hall, its conveniences appealing very strongly to exhibitors.

Only this year, when the Broadway Hall was offered to the Manufacturers' Auxiliary of the Fraternity of Operative Millers, they thought the space too large, because it is much greater than they had used in the past. However, announcements were sent out late in January, outlining the possibilities of display in the hall, and by March 15 all the space had been sold and it became a problem of allotment. This exhibit does not take place until the first week in June.

Broadway Hall is conveniently located and is within a few minutes walk of Main street and the principal hotels, and it would seem that it affords the opportunity for the greatest and most interesting convention ever held by the State Association.

Little need be said of our other facilities for a successful convention. Buffalo has ample hotel accommodations, and her best hotels are not excelled in appointments or service by those of any other city. Social service here is on a high plane, and we have, for the relief of the sick, twenty public hospitals, many of them models of their kind, together with six dispensaries, an efficient district nursing association and visiting tuberculosis nurses.

Buffalo is rich in historic associations, and her splendid public buildings, parks, drives and streets are a delight to many thousands of visitors every year."

MEDICAL BILLS BEFORE THE N. Y. STATE LEGISLATURE. The Committee on Legislation of the State Society calls attention to the following:

Senate Bill No. 325 by Mr. Boylan, in relation to habit forming drugs—Opposed.

Assembly Bill No. 465 by Mr. Conkling and Senate Bills Nos. 608 and 631 by Mr. Herrick, amending the Medical Practice Act and licensing Osteopaths to practice medicine (reported to Committee of the Whole)—Opposed.

Senate Bill No. 281 by Mr. McClelland and Assembly Bill No. 1148 by Mr. Jones, to license Naturopaths to practice—Opposed.

Senate Bill No. 710 by Mr. Boylan and Assembly Bill No. 963 by Mr. Kerrigan, known as the Chiropractic Act—Opposed.

Take Notice—The aim of these bills is to destroy the present Medical Practice Act and permit persons not properly qualified to practice medicine.

Senate Bills No. 3 by Mr. Boylan and No. 182 by Mr. Herrick and Assembly Bill No. 501 by Mr. Gallup, Antivivisection bill, with the aim to abolish vivisection—Opposed.

Senate Bill No. 575 introduced by Senator Seeley, to amend the Public Health Law, relative to medical licenses—Opposed, unless the bill is amended as follows:

Omit the power of the Regents to decide what is ethical;

Omit giving the Regents power to reinstate a physician convicted of a felony, if his conviction has been for conduct in his professional capacity.

Kindly *favor* the passage of Assembly Bill No. 905 by Mr. Brennan, abolishing the office of Coroner and creating the offices of Medical Examiners, etc., and Senate Bills Nos. 208 and 209, introduced by Senator Seeley (M. D.,) Craig Colony Bills, to improve present conditions.

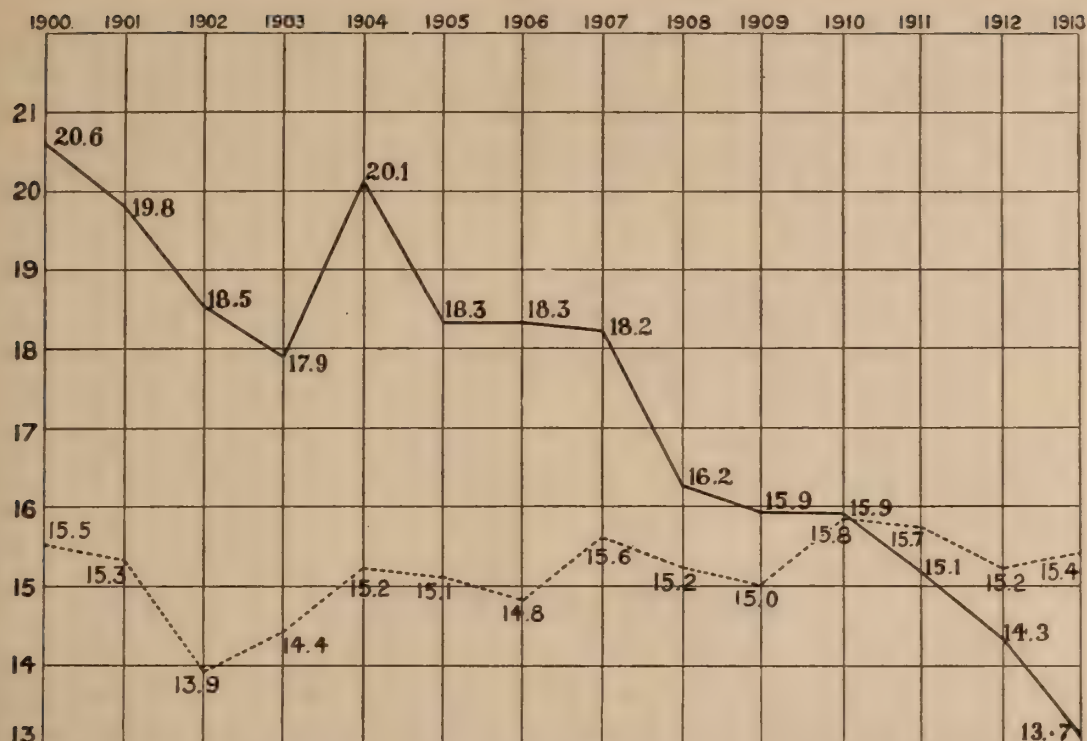
TRAP FOR FLY LARVAE. The U. S. Bulletin of Agriculture, No. 14, February 28, 1914, by Robert H. Hutchison, suggests a method depending on the habit of the larvæ to migrate to moist portions of manure. The manure is stored over a coarse sieve or in a wire basket, sprinkled daily, and the larvæ are drowned in a container of water below. By covering the mass with dark cloth, flies were directed toward traps as they hatched and many of the mature flies were caught also. Nearly 99 per cent. of fly larvæ were collected within a week, in experiments, the total being estimated by adding the number of mature flies also caught. Of course, various practical points, as the depth of manure to which the method may be applied successfully, the time which it should be kept, enforcement of regulations, etc., remain to be determined.

PHYSICIANS' BILLS FOR WORK DURING SMALL POX EPIDEMIC AT NIAGARA FALLS. Dr. Edward Clark of Buffalo was paid \$500 for twenty days' expert services, and various local physicians received compensation at the rate of \$15 a day for house to house canvasses. The bills rendered were for approximately double these amounts.

NATIONALITY OF CIVIL WAR SOLDIERS. It is estimated approximately that about one-third of the present population of the U. S. is American in the colonial sense. As there was relatively little immigration for a period of about a hundred years from 1720 to 1820, the division is more logical than might seem. Even at the time of the Civil War, there was not only a considerable foreign population, but a good many of the first generation born here and a very marked development of loyalty to the adopted country, as the following statistics compiled by Benjamin Apthorpe Gould in 1868, shows:

Native Americans	1,523,267
German born	176,817
Irish born	144,221
British Provinces in North America.....	53,532
English born	45,508
Other foreign born.....	74,855
	2,018,200

UNITED TWINS SEPARATED. The French twins, Madeleine-Suzanne, born November 28, 1913, were separated March 5, 1914, by Dr. Doyen of Paris. In 1902, he separated the Hindoo twins, Radica-Roodica, who died later of tuberculosis.



DEATH RATE IN NEW YORK CITY COMPARED WITH DEATH RATE IN RURAL NEW YORK

Heavy black line shows decline in death rate of New York City. Dotted line shows recent increase in death rate of rural New York (villages below 8,000 population classed as rural). Note that New York City loses fewer lives in proportion to population than does the rural portion of the State.

Figures on top of chart indicate years from 1900 to 1913 inclusive. Figures at side of chart represent deaths from all causes, per 1,000 of population.

(Courtesy of State Charities Aid Association, 105 East 22nd St., New York.)

THE HARRISON ANTI-NARCOTIC BILL, now before the U. S. Senate, provides for the registration, at a fee of \$1.00 per annum, of every person who produces, imports, manufactures, compounds, deals in, dispenses, sells, distributes or gives away, opium, or coca leaves or any compound . . . or derivative thereof. A maximum, for each prescription for internal use of two grains of opium, $\frac{1}{4}$ grain of morphine, $\frac{1}{12}$ grain of heroine, 1 grain of codeine per fluid or avoirdupois ounce is exempt. Strictly external preparations of opiates are exempt from these limits, but the same limits seem to apply to any preparation of cocaine or artificial substitutes, whether for internal or external use. Heavy penalties are provided for violation or evasion of the law.

The Act does not apply to physicians, dentists, veterinary surgeons employed to prescribe for particular patients receiving such drug or article receiving in good faith such drug or article. Nor does it apply to a pharmacist, who receives a prescription from a physician, dentist or veterinary surgeon, but pharmacists are required to preserve the prescriptions for a period of two years.

It will be noted that the limit set for heroin does not correspond to that for morphine, although the dose is approximately the same. The bill may also be criticized in that, in spite of exemption of physicians and allied professional men from ordinary prescription use of these drugs, it apparently prohibits any such person from carrying a stock of convenient size or from having stock solutions of greater strength than may be proper for actual prescription, unless he takes out a license in regular form.

There is one further general criticism which may be made, and which has been made of the Income Tax Law. This bill is to take effect January 1, 1914, several months before it can be passed. How about the constitutional objection to post facto laws?

SOCIETY MEETINGS.

Brief reports and announcements of meetings of societies of Western New York and those of general scope are requested from Secretaries. Copy should be on hand the fifteenth of each month. Full transactions will be published at cost of composition.

THE ROSWELL PARK MEDICAL CLUB of Buffalo celebrated its twenty-fifth anniversary on February 9th. Dr. J. H. Potter, the President, gave a short history of the organization, he being one of the original two founders. Dr. J. C. Thompson, the other, acted as toastmaster. The feature of the evening was the presentation to Dr. Park of a handsome hand illumined memento, upon which was inscribed, "Lest men forget the love and esteem in which the members of the Roswell Park Medical Club hold him, whose honored name they have borne for the past twenty-five years, a faithful friend, a brother in good fellowship, an exemplar of professional conduct, a wise counsellor in time of need, they tender this token of their good will."

Then followed five quotations from his own writings. In responding, Dr. Park spoke with the deepest feeling of the friendship and pleasant relations which had so long existed between himself and the members of the club. He paid a touching tribute to the memory of one of the members, Dr. F. C. Busch, recently deceased, and referred in an almost prophetic manner to the next depletion of the number by death. Six days after he himself was called to the great beyond.

THE MEDICAL SOCIETY OF THE COUNTY OF MONROE held a regular meeting on March 17, Dr. Albert C. Snell, the newly elected president being in the chair. The program consisted of a paper by Dr. Roger S. Morris of Clifton Springs Sanitarium on "Gastric Anacidity and Diarrhoea."

THE ROCHESTER PATHOLOGICAL SOCIETY held its meeting on Friday, March 13. Dr. Robert T. Morris of New York reading on the subject: "Let us Settle the Loose Kidney Question."

Further programs as follows: March 19, R. R. Fitch of Rochester; April 2, Allen K. Krause of Saranac Lake; April 16, Paul O. Luedeke of Rochester.

THE ROCHESTER ACADEMY OF MEDICINE, Section III, met on March 11 at the Academy rooms, Dr. Joseph Roby reading on "The Infants' Summer Hospital—Some Pediatric Cases."

THE HOSPITAL MEDICAL SOCIETY OF ROCHESTER has the following programs, past and future: March 12, "Overfeeding in the Treatment of Digestive Ailments," C. R. Witherspoon; March 26, "Headache," L. W. Jones; April 9, "Local Anæsthesia," C. W. Hoyt; April 23, "New Growth of the Mediastinum," with report of two cases, F. W. Seymour.

THE BUFFALO ACADEMY OF MEDICINE has held the following meetings:

February 24—Pathology; The Income Tax as it Affects the Physician, Charles C. Page, Esq., of Buffalo; Certain Immunological Reactions and Their Practical Application in the Diagnosis and Treatment of Infections, Dr. Fred C. Bowman of Buffalo.

March 3—Surgery; Intestinal Obstruction, illustrated by stereopticon, Dr. Alexander Primrose of Toronto.

March 10—Medicine; The Burden of Mental Defect, Dr. H. G. Matzinger; Demonstration of Tests to Establish Mental Age of Children, Dr. F. W. Barrows of Buffalo.

March 10—By special invitation, the Academy met in Alumni Hall, University of Buffalo, to hear Prof. Gustav Monod of Vichy and Paris, on "Some Considerations of Enteroptosis," an exposition of Glenard's studies. Dr. Monod is the representative of the French government, touring America in the interests of French post-graduate medical schools. He spoke very flatteringly of American medical colleges, as explaining the falling off in the attendance of American students in France.

March 17—Obstetrics and Gynæcology; Treatment, Operative and Non-operative, or Severe Prolapsus Uteri; Dr. Harry Sturgeon Crossen of St. Louis.

THE MEDICAL SOCIETY OF THE COUNTY OF CHEMUNG met in Elmira, March 17. The program was as follows: Malignant Tumors Affecting the Eyeball, Dr. G. M. Case; Treatment of

Acute Alcoholism, Dr. W. C. Byrne; Physio-chemic Principles in Therapy, Dr. L. D. Mottram.

THE ELMIRA ACADEMY OF MEDICINE met March 4. The program was as follows: Present Status of the Cure of Cervical Cancer, illustrated by lantern slides, Dr. James E. King of Buffalo; Modern Ophthalmology and Otolaryngology, Dr. G. M. Case of Elmira.

THE MEDICAL SOCIETY OF THE COUNTY OF NIAGARA met in Lockport March 4, 1914. Dr. Wm. G. Bissell of Buffalo demonstrated the Wassermann test. Various committees were appointed. The next meeting will be held in North Tonawanda.

At the monthly meeting of TONAWANDA ACADEMY OF MEDICINE, held in March, at the residence of Dr. Britt, the paper of the evening on "Vaginal Cæsarean Section" was read by Dr. Irving W. Potter of Buffalo.

The Annual Smoker of the I. C. I. Chapter of Nu Sigma Nu was held at the chapter house March 9.

PERSONALS

Announcement of removal, travel, and other matters of interest are requested. Please report errors in the listing of any physician in the State and other directories that we may co-operate with the State Society in securing a correct list.

Dr. Thew Wright of Buffalo returned March 13 from a trip to South America, Panama and Cuba.

Dr. D. H. Arthur, Superintendent of the Gowanda State Hospital, resigned March 12.

On February 20, by invitation, Drs. E. W. Saunders of St. Louis, Roland Meisenbach of Buffalo and W. E. Wisdom of Arkansas presented their work on Infantile Paralysis before the University of Virginia, in Richmond.

Dr. Edward Meyer of Buffalo visited French Lick Springs in March.

Dr. Clayton M. Browne of Buffalo has bought the residence of the late Dr. Roswell Park.

Dr. Henry Adsit took a short trip to Baltimore and New York late in February.

Dr. Walter V. Girvin of Jamestown returned early in March from a western trip of several weeks.

Dr. Regina Flood Keyes of Buffalo took the Panama-west Indies trip in February.

Dr. M. D. Mann of Buffalo has returned from a trip to California.

Dr. F. M. Evans has been elected President of the village of Fredonia.

Dr. Charles W. Banta of Buffalo returned about the middle of March from a trip to Bermuda, stopping for a week in Baltimore to study Dr. Howard Kelly's work.

Dr. N. G. Richmond of Fredonia is spending six weeks hunting and fishing in Florida, returning about the middle of April.

Dr. Jane W. Carroll has moved from Buffalo.

Dr. W. S. Grimes of Detroit, a University of Buffalo man, has resigned his position as pension examiner on account of pressure of private practice.

The editor acknowledges with thanks a complimentary card for the Ragaz-Pfaefers baths, Switzerland. Even a plain, ordinary bath, according to modern American standards of immersion, is often not available in Europe, and we shall not forget a Swiss bath, after several days of wet-rag ablutions, personally conducted by a man servant, a maid servant and a boy, with an imposing array of sheets and towels. We regret that we shall probably not be able to accept this hospitality for another year at least.

At a recent meeting of the Tri-State Medical Society of the Carolinas and Virginia, Dr. E. C. Register, who has been editor of the well-known *Charlotte Medical Journal* for twenty-five years, was elected president.

Dr. Ray A. Edson announces the opening of his office at 560 Delaware avenue, Buffalo.

Dr. N. Victoria Chappell and Miss E. Mae Chappell, formerly Librarian of the University of Buffalo, have returned from a visit of two months in California.

Dr. H. C. Tinkham of Burlington, Dean of the College of Medicine, University of Vermont, and Editor of the *Vt. Med. Monthly*, was in Buffalo March 20 to attend the Alumni dinner, presided over by Hon. Henry W. Hill.

Dr. George D. Miller of Warsaw spent the latter part of March in New York.

Dr. C. F. Cushing of Niagara Falls will return from Florida about the middle of April.

Dr. J. J. Drake of Lackawanna has returned from a two months' trip to California.

OBITUARIES.

Readers are requested to report promptly the death of all physicians in Western New York, or former residents of this region, or graduates of any medical school in Western New York and to notify the families of the deceased of our desire to publish adequate obituary notices.

Dr. William H. Parker, Buffalo, 1881, a former Buffalonian, for some years a resident of Ocean Park, Cal., died suddenly March 18.

Dr. Isaac E. Bennett, Buffalo, 1872, died at his home in Plano, Ill., February 19, aged 66.

Dr. Ralph Lyman Parsons, N. Y. Medical College, 1857, died at his home in Ossining, N. Y., February 26. He was born in Prattsburg, Steuben County, N. Y., July 30, 1828, and was educated at Amherst, graduating in 1853. He was prominent in

neurology, having been superintendent of the New York City Asylum for the Insane from 1865 to 1877; of the Kings County Asylum from 1877 to 1878, and established a private hospital Ossining in 1880, of which he remained in charge till his death.

Dr. Ira D. Hopkins, Buffalo, 1859, died at his home in Utica, February 23, aged 81. Death was due to a fall five days previously.

Dr. W. Edson Apple, Jefferson, 1898, of Philadelphia, died at the Episcopal Hospital of that city, February 15, aged 36. He was formerly a surgeon in the U. S. Army and was well known to Buffalo physicians through that connection.

Dr. Harry B. Howell, Buffalo, 1890, died in Rochester, February 6, aged 50.

Dr. Alexander Ennis, Albany, 1855, died in Pattersonville, N. Y., February 16, aged 84.

Mrs. Lucy Broad, who will be remembered by the older generation of Buffalo physicians as the proprietor of a drug store at 17 South Division street, and who was popularly known as Dr. Broad, died in March, as the result of accidental burns, aged 83. She had retired from active life many years ago, and had engaged in many private philanthropies.

BOOK REVIEWS.

Books mentioned may be inspected at and ordered through this office. So far as possible, books received in any month will be reviewed in the issue of the second month following.

DISEASES AND DEFORMITY OF THE FOOT. John Joseph Nutt, B. L., M. D., Surgeon-in-Chief New York State Hospital for the care of Crippled and Deformed Children; Surgeon Sea Breeze Hospital, etc., etc. \$2.75, E. B. Treat & Co.

This book is written, as the author states in his preface, for the use of physicians who have not had the time or the opportunity for a thorough study of the foot. The author has attempted to cover a very large topic in a very limited space, and as is inevitable with a book written in this way, many important subjects are naturally abbreviated, and much that is of value is necessarily omitted.

In the chapter of Anatomy, the supernumerary bones of the foot are but touched upon. The mention and treatment of Rigid Foot, a condition which is so frequently seen following infections, has been entirely overlooked. The chapters on Weak Foot and Flat-foot, however, are, with a few exceptions, of great value as are also the chapters on Infantile Paralysis and Congenital Club-foot. The latter subject, Congenital Club-foot, is treated quite extensively, and shows that the author has had vast experience in this type of deformity.

The book is of value especially because it shows the wide range of conditions affecting the foot, and that the orthopedist, when seeing a foot case, has much more to take into consideration than simply flat-foot in making a proper diagnosis. Some of the more modern procedures are also presented; namely, Heliotherapy, Stoeffel's treatment for spastic paralysis, and many others of equal value.

MORTALITY STATISTICS, 1912. Bureau of the Census.

This is the 13th annual report and contains much interesting information. The chart on page 18, showing the curve of death rates from several common diseases, deserves study. Since 1900, tuberculosis has declined, fairly steadily, from a trifle over 2 per 1000 population to a trifle less than 1.5. This represents a close parallelism with the decline of the total mortality and warrants considerable optimism. Typhoid has declined from about 36 to 19 deaths per 100,000 population. The statement so often repeated that pneumonia deaths compensate for any decline in tubercular mortality appears to be unwarranted. On the contrary, there has been a decline from about 18 to 13 deaths per 1000 population. Organic heart disease, nephritis, cancer, apoplexy, all show moderate increase, to be expected as the general death declines and the average longevity increases.

DIAGNOSTIC METHODS, Herbert Thomas Brooks, A. B., M. D., Memphis. C. V. Mosby Co., St. Louis. 82 pages; \$1.00; 2d edition.

This is a brief compend intended especially for students, but, while it is obviously not an extensive and intensive work, it is well adapted to the use of the general practitioner. It is a good deal better to make a moderately complete routine examination of all cases than to attempt, spasmodically, elaborate methods, or to buy a work beyond one's ability, equipment and time, and to become discouraged with the whole range of modern diagnostics.

PRACTICAL SANITATION, Fletcher Gardner, M. D., Health Commissioner of Monroe, Ind., and James Persons Simonds, A. B., M. D., Prof. of Preventive Medicine and Bacteriology, University of Texas. C. V. Mosby Co., St. Louis. 403 pages, illustrated; \$4.00.

This work is especially intended for the use of health officers but also for physicians generally. It is to the best of our knowledge, the only book dealing with sanitation from this standpoint. The work is arranged in three parts—epidemiology, general sanitation and laboratory methods. It contains schedules for sanitary service in cities, samples of blanks used by health departments, criticisms of reports of vital statistics, etc. Infectious diseases are classified in groups such as show marked analogies or are likely to demand differential diagnosis (as diphtheria, whooping cough, epidemic parotitis, etc.) Quarantine of different kinds and for different diseases is especially well treated. However, the work is complete and excellent throughout.

STAMMERING AND COGNATE DEFECTS OF SPEECH, C. S. Bluemel, Boulder, Col.

In our review in the January issue, we stated that the second volume dealt with systematic pronunciation exercises. We failed to note that the author expressed a general disapproval of all these systems in the preface. It is so rarely that an author presents in detail a comprehensive review of matter contrary to his own opinion that we trust we shall be pardoned for the oversight. Dr. Bluemel is to be complimented on his broadness of view in this respect, in giving to readers who may dissent from his opinion, the benefit of matter which they would, otherwise, have to obtain elsewhere, while, on the other hand, his criticisms of the methods alluded to, are of value in forming opinion.

GUN SHOT INJURIES. Col. Louis A. Lagarde, M. D., U. S. A. Medical Corps, retired; late Commandant and Prof. of Military Surgery, U. S. A. Medical School. Published under the direction of the Surgeon General and by authority of the Secretary of War, by Wm. Wood & Co., N. Y.; 498 pages, illustrated, \$4.

Col. Lagarde's ample experience and opportunities for employing the accumulated experience of the U. S. Army, as well as his training in didactic methods, well qualify him for the treatment of this subject. The technical details of projectiles are thoroughly discussed. It is somewhat surprising to note the variation in the tetanus rate in warfare and that even in military surgery,

the blank cartridge is now especially to be feared. X-ray methods are well discussed, especially with regard to portable field apparatus. Many of the illustrations show the ultimate effect of projectiles on bones. Lesions of the soft parts, especially of the viscera, are given due attention.

PATHOGENIC MICRO-ORGANISMS. Ward J. MacNeal Ph. D., M. D., Prof. of Pathology and Bacteriology, N. Y. P. G. Medical School and Hospital. (Based upon Williams' Bacteriology). P. Blakiston's Son & Co., Philadelphia; 462 pages, 213 illustrations; \$2.25.

This is virtually a sixth edition of the work of Dr. Herbert Upham Williams, Dean of the Medical Department of the University of Buffalo, who wished to be relieved of further responsibility on account of pressure of other duties. The present author has impressed his own personality upon the work, without failing to retain the excellence of the original. It is a thorough treatise, discussing both general bacteriologic technic and the morphology and biology of micro-organisms, including historic notes, references to specificity, diagnostic problems, etc. As Williams' book has been so long used and so favorably received, as noted by the number of editions through which it has passed, further comment is unnecessary.

THE INTERVERTEBRAL FORAMEN, An Atlas and Histologic Description of an Intervertebral Foramen and its Adjacent Parts. Harold Swanberg, Chicago. Chicago Scientific Publishing Co.; 101 pages, 16 original full page plates; \$3.00.

This is one of the most erudite and interesting monographs on an anatomic subject that has been presented. The author used an eight-months old domestic cat, prepared sections in the most careful manner, and subjected them to histologic examination of the most minute degree.

LEADERS IN HOMEOPATHIC THERAPEUTICS. By E. B. Nash, M. D. author of "Leaders in Typhoid," "Regional Leaders," "Leaders in Sulphur," "Leaders in Respiratory Organs," "How to Take the Case," and "Testimony of the Clinic." Fourth edition. 493 pages. Cloth, \$2.50 net. Postage, 16c. Philadelphia. Boericke & Tafel, 1913.

This is not a biographic work, as we thought at first glance, but a homeopathic materia medica and therapeutics, the leaders being the important drugs used. It is a genuine, thorough presentation of the subject by a genuine homeopath. We do not

feel competent to give a systematic review from this standpoint and certainly are not inclined to subject a carefully written work to criticism from the standpoint of one unfamiliar with the fundamental premises of the author.

DIAGNOSIS IN THE OFFICE AND AT THE BEDSIDE. The Use of Symptoms and Physical Signs in the Diagnosis of Diseases. By Hobart Amory Hare M. D., Professor of Therapeutics, Materia Medica and Diagnosis in the Jefferson Medical College of Philadelphia. New (7th) edition, thoroughly revised and rewritten. Octavo, 547 pages, with 164 engravings and 10 full-page plates. Cloth, \$4.00 net. Lea & Febiger, Philadelphia and New York, 1914.

This book is of an eminently practical nature and wisely graded to standards applicable by the clinician. To a considerable degree, illustrative cases are used for didactic instruction, without extending their discussion to the degree appropriate to a clinical lecture. For instance, a cross section (full page plate) shows the actual findings in a case of colloid cancer of the peritoneum and iliac flexure. The sphygmograph and cardio-sphygmograph are shown in actual operation. This method, consistently carried out, affords a better grasp and is more impressive than an entirely impersonal description yet it is employed only to supplement a systematic general discussion of Diagnosis.

THE ELEMENTS OF HOMEOPATHIC THEORY, PRACTICE, MATERIA MEDICA, DOSAGE AND PHARMACY. By Drs. F. A. Boericke and E. P. Anshutz. Third Revised Edition. 223 pages. Cloth, \$1.00. Postage, 5 cents. Philadelphia. Boericke & Tafel. 1914.

Part I, Generalities, is naturally of most interest to the non-homeopath. A brief biography of Hahnemann, a list of homeopathic text books, including one on veterinary medicine and a discussion of the general principles of therapeutics, are contained in this section. The symptomatic indication, potency, etc. of each drug, follows according to an alphabetic arrangement.

THE ANATOMIST'S NOTE BOOK. A. Melville Paterson, M. D., F. R. C. S., Liverpool; Oxford University Press, American Branch, 35 W. 32, N. Y.; 350 pages, copiously illustrated. \$2.

This gives concise directions for dissection by regions, each well illustrated by full page cuts and with blank leaves for notes.

Muscles, vessels and nerves, ligaments, etc., are chiefly covered, the book not pretending to enter into the anatomy of the central nervous system or the viscera, except as touched upon in ordinary dissection.

THE EARLY DIAGNOSIS OF TUBERCLE. Clive Riviere, M. D., F. R. C. P., London; Oxford University Press, American Branch, 35 W. 32, N. Y.; 260 pages including 31 illustrations; \$2.00.

This is divided into parts, for adults and children, the latter including a lucid description of the French conception of "ganglio-pulmonaire." The discussion of temperature, especially with regard to the diagnostic value of rise of temperature on exertion deserves special attention. A negative general and febrile reaction to tuberculin is considered quite reliable, but elevations of temperature occur after its use in a third of normal cases and in half or more of various infections, as well as in tuberculosis. These are random topics, showing the value of the information contained in this book which seems always to be based on facts and on facts not readily available or generally known.

INFECTIONS OF THE HAND. A Guide to the Surgical Treatment of Acute and Chronic Suppurative Processes in the Fingers, Hand and Forearm. By Allen B. Kanavel, M. D., Assistant Professor of Surgery, Northwestern University Medical School, Chicago. New (2d) edition thoroughly revised. Octavo, 463 pages, with 147 illustrations. Cloth, \$3.75, net. Lea & Febiger, Philadelphia and New York, 1914.

Some time ago we reviewed the first edition of this work. The exhaustion of the first edition has given opportunity for revision and the addition of new matter. The author states in the preface that he has hesitated to enter too much into detail, yet a highly specialized work of this kind requires detail. This book is one of a few which has entered a practically untilled field and has already established itself as the authority in this field.

TRANSACTIONS OF THE AMERICAN ASSOCIATION OF G. U. SURGEONS. Vol. 8, covering 27th Annual Meeting at Atlantic City, May 6 and 7, 1913. (Secretary Dr. Richard F. O'Neil, Boston.)

This is a paper-bound work of 313 pages, well illustrated, comprising a number of valuable monographs, lists of officers and members, etc.

BUFFALO HISTORICAL SOCIETY PUBLICATIONS. Vol 17, edited by Frank H. Severance, Secretary; 453 pages.

The permanent value of any similar organization depends mainly on the work of the Secretary. This volume contains reproductions of photographs of the board of managers, including three physicians—G. Hunter Bartlett, A. H. Briggs and Lee H. Smith. Various papers of local interest are contained in this volume, but the most important part of the work from the general historic standpoint is the collected papers of Gen. Sir Roger Hale Sheaffe, who assumed command of the British army on the Niagara Frontier after the death of Gen. Sir Isaac Brock. An interesting medical item is a bill of Dr. Cyrenius Chapin, paid by Erastus Granger for medical attendance on and medicines furnished to Red Jacket—19 calls and various powerful medicines such as several lots of croton oil pills, tartar emetic, Epecac (sic) amounting in all to 1 pound, 17 shillings.

RADIUM THERAPEUTICS. N. S. Finzi, M. B., M. R. C. S., L. R. C. P., L. S. A., London; Oxford University Press, American Branch, 35 W. 32, N. Y.; 112 pages, illustrated; \$2.00.

This book includes an excellent systematic treatise on the properties of radium, its disintegration products, emanations, etc., a general description of its action on tissues, micro-organisms, etc., leading up to the detailed consideration of the technic of its application in therapeutics. It is stated that in spite of its limitation to inoperable cases, 10-15 per cent. of cancers disappear and in some cases, no recurrence has occurred for several years. Definite and apparently candid and reliable statements are similarly made for each special disease treated so that the work is of the utmost value and timely. We doubt, however, whether many of our readers will work with a gram of radium, as the author has done in many instances.

We have received a large number of Inaugural Dissertations from the University of Göttingen. These monographs cover a wide range of medical subjects and are at the service of anyone interested.

THE CLINICS OF JOHN B. MURPHY, M. D., at Mercy Hospital, Chicago. Volume III, Number 1. Octavo of 190 pages, 91 illustrations. Philadelphia and London: W. B. Saunders Company, 1914. Published bi-monthly. Price per year, paper, \$8.00; cloth, \$12.00.

These Clinics have now entered upon the third annual volume. They continue in the same general style that has been noted pre-

viously. There are profuse illustrations, especially of the bone cases. It is stated that the subject of surgical diagnosis will form an important part of subsequent numbers.

A STUDY OF NORTH APPALACHIAN INDIAN POTTERY. Christopher Wren, Plymouth, Pa., republished from Vol. 13 of the Proceedings of the Wyoming Historical and Geological Society of Wilkes-Barre by the E. B. Yordy Co., Wilkes-Barre, 1914. 101 pages, illustrated.

This is a valuable study of local archæologic material, containing interesting general observations on pottery and including a description of pipes, steatite vessels and various sites of aboriginal occupancy. Excepting details noticeable only to an expert, there is a marked similarity to the remains found about Buffalo. There is one little point in psychology that may interest the medical reader. Prehistoric Indian pipes, when ornamented at all with anything beyond a conventional device, usually have the ornament—human or animal head, etc.—facing the smoker, whereas, Indian pipes made after the introduction of European ideas, usually followed the latter custom of turning the ornament away from the smoker. This one point has a considerable value in determining the antiquity of a relic. The reason is probably to be found in the solitude of the Indian, who probably gained some sense of companionship from the figure facing him, whereas, the European, less in need of companionship, instinctively seeks to impress the outsider by putting his decorations where they will most readily attract attention.



PROGRESSIVE MEDICINE. Vol. 16, No. 1, March 1, 1914. Edited by Drs. Hobart A. Hare and Leighton F. Appleman of Philadelphia, published by Lea & Febiger, Philadelphia; \$6.00 per year (quarterly issues.)

The contents of the present volume are: Surgery of the Head and Neck, by Dr. Charles H. Frazier; Surgery of the Thorax, including the Breast, Dr. George P. Müller; Infectious Diseases, including Rheumatism, Pneumonia and Influenza, by Dr. John Ruhräh; Diseases of Children, by Dr. Floyd M. Crandall; Rhinology and Laryngology, by Dr. George B. Wood; Otology, by Dr. Arthur B. Duel. There are 406 pages, well illustrated. It should be remembered that this series is not an index medicus in the ordinary sense, but contains monographs each of which consists of a carefully digested original article in which special attention is given to the progress of medicine in the particular aspect viewed.

ANNUAL REPORT OF THE SURGEON GENERAL OF THE PUBLIC HEALTH SERVICE, 1913. Government Printing Office, Washington.

This is a book of 318 pages, giving detailed information of the work of the service, even including some of its scientific work.

ANATOMY AND PHYSIOLOGY FOR NURSES. Amy E. Pope, Instructor in the Presbyterian Hospital School for Nursing, New York; published by G. P. Putnam's Sons, New York and London; 554 pages, 135 illustrations; \$1.75.

The plates are clear and many of the illustrations are in color. Diagrammatic representations, as of the Haversian system, have been employed in several instances. While it is a debatable question as to how much technical medical training should be required of the nurse, and while it is obviously impossible in any science to give an absolutely accurate impression without entering into qualifying details in full, it seems to us that the author has made an admirable compromise and has prepared a text book not only adapted to the use of nurses but of high school and college students. We would go further and suggest that a course in which anatomy and physiology are combined, and of about this degree of intensity, might well be employed for medical students as a preliminary to the usual full descriptions. We are inclined to believe that a bird's-eye view of these branches, combined so as to impress on the student the functions as well as the elementary structure and relations of the organs would stimulate his attention to more formal and difficult study.

IMMUNITY, Methods of Diagnosis and Therapy and Their Practical Application, by Julius Citron, Berlin, translated by A. L. Garbat of New York; second edition, revised and enlarged; 267 pages, 30 illustrations, 2 colored plates and 8 charts; \$3.50. P. Blakiston's Sons & Co., Philadelphia.

The demand for a second edition of this work, after a year, attests the fact that Dr. Citron's work is not botanically related to him. The title clearly indicates the scope of the book, as both a systematic treatise, though not entering into all details of amynologic theory, and a practical laboratory guide.

ANNUAL REPORT OF THE DIRECTORS OF THE AMERICAN TELEPHONE AND TELEGRAPH Co., New York, 1914, pamphlet, 68 pages.

This report shows the financial strength and usefulness of the Bell System. Beginning with a scarcely noticed exhibit at the

Centennial Exhibition of 1876, this system reached the 100,000 mark in 1884, doubled in 1891 and passed the million mark in 1902. Since the development of competition shortly after this date, and the necessary return to the flat rate in many cities, the increase has been remarkable. At present, over eight million Bell telephones are in use: 1:12 of the population. The prosperity of the company itself, as well as the saving of time and, in many instances of life, to the public, is shown to have been wonderfully increased by the stimulus of competition, while every user can attest the improvement of service.

MANUAL OF SURGERY. Alexis Thomson and Alexander Miles of Edinburgh. Published by the Oxford University Press, American Branch, 35 W. 32, New York; Vol. 3, Operative Surgery, 2d edition; 620 pages, 255 illustrations; \$3.50.

We have already reviewed other volumes in this series. Each is complete in itself. While the books of this series are small, they cover all of the usual surgical procedures and omit comparatively few rare operations. By employing a brief literary style and avoiding the repetition of details readily understood, they are really of more value to the average surgeon than works which apparently assume that one entirely ignorant is to be guided through the steps of an operation or than those which aim to amass all possible opinions and observations on every operation.

DISEASES OF THE HEART. James Mackenzie, M. D., F. R. C. P., LL. D., F. R. C. P. I., London. Oxford Medical Publications, Oxford University Press, American Branch, 35 W. 32, New York. 3d edition; 502 pages, illustrated; \$5.50.

This is an unusually large and detailed work for an English author, fulfilling the standards of completeness set by German and American authors. The first edition was published in 1908, the appreciation of its value demanding a second edition in 1910, and the present, rewritten last year. The author calls attention in the preface to three developments which have materially changed the point of view of an author of a book on this subject: 1. The clearer differentiation of signs of disease, especially by the electro-cardiograph. 2. The bearing of heart manifestations on the question of present or remote heart failure. 3. The realization that the physiologic principles of the circulation cannot be based entirely on normal hearts but must be modified according to existing heart lesions. This enunciation of the scope of the work implies a broadness of view and an inclusive significance of heart disease. The appendix reinforces the didactic and sys-

tematic treatment of the subject, with clinical illustrations of great value, including 92 case reports, bearing on almost every phase of the general subject.

DEFECTIVE OCULAR MOVEMENTS AND THEIR DIAGNOSIS. E. and M. Landolt, Paris, translated by Alfred Roemmele and Elmore W. Brewerton. Oxford University Press, American Branch, 35 W. 32, New York; 99 pages, 27 illustrations; \$2.00.

This monograph begins with a consideration of the anatomy, physiology and optical mathematics of the extrinsic motor apparatus of the eyes. While intended to be thoroughly practical it necessarily enters into many scientific details, including the central lesions concerned in certain forms of paralysis. The tabular review of Diplopia, giving normal appearances for each eye and abnormal pictures obtained from test type and fixing line, is especially good.

LECTURES ON TUBERCULOSIS TO NURSES. Olliver (sic) Bruce, M. R. C. S., L. R. C. P., Joint Tuberculosis Officer, County of Essex, England; 134 pages.

LECTURES ON MEDICAL ELECTRICITY TO NURSES. J. Delpratt Harris, M. D., M. R. C. S., Royal Devon and Exeter Hospital, England; 88 pages, illustrated.

These two books are published by Paul B. Hoeber, 69 E. 59, New York, at \$1.00 each, in a series of monographs for nurses. They give a sufficient understanding of the scientific principles and facts involved and then discuss the respective subjects from the practical standpoint of what is likely to be expected of the nurse in assistance upon actual cases. The authors have avoided the pitfall into which so many have fallen, of entering into too great minutiae, and this series is destined to be of great value in affording an intelligent comprehension of fundamentals and in impressing the practical duties of the nurse.

THE HEALTHY MARRIAGE. G. T. Wrench, M. D., B. S., Past Assistant Master of the Rotunda Hospital, Dublin. Published by Paul B. Hoeber, 69 E. 59, New York; 300 pages; \$1.50

This book, dedicated with affection and esteem to the author's mother-in-law, is intended as a "medical and psychologic guide for wives." We like the dedication. Every man who has contracted a eugenic marriage with a woman who is healthy in body and mind ought to recognize a debt to his mother-in-law. In the initial chapter, the writer not only endorses early marriage, but

logically recommends parental assistance to that end, when required by the economic difficulties of highly artificial civilization, and draws an analogy with the oriental sense of duty on the part of the parent to provide for the marriage of his sons. In this heresy we cordially agree. We recall, with lasting regret, a brilliant young married woman who died soon after the birth of her second child from exposure and overwork, her relatives in very comfortable circumstances being imbued with the notion that the young people ought to be independent. And we are watching with interest the result of the theory of a prosperous business man that it is cheaper and better to encourage early domestic life in his son than to run the risk of having to pay in something more precious than money for the results of a young bachelor's life.

(The author is almost unique among writers who are not professional ethnologists in realizing that savages are almost universally moral and decent. It may interest him, therefore, to know that the reviewer has observed only two Indian relics in western New York that could be considered obscene. One of these is a "maternity" pipe which does not necessarily indicate impurity of thought in its crude designer, and the other was originally an ordinary stone pestle, made obscene by an orthodox Christian white farmer who found and embellished it.

Wrench's book discusses in order the various physician and psychic trials of the married woman and contains much good advice as to the conduct of labor, care of the child, etc.

ABSTRACTS

LABORATORY DONT'S, *The Laboratory News*, January, 1914. Don't expect the Laboratory *alone* to make the diagnosis, prognosis and suggest all the treatment of a case. The laboratory does not pretend to push aside clinical symptomatology.

Don't abandon a diagnosis of pulmonary tuberculosis because you fail to find tubercle bacilli in the sputum. Remember that a positive finding of tubercle bacilli is a late diagnosis, not an early one, of pulmonary tuberculosis.

Don't forget that hoarseness of the voice, without any other good reason is suggestive of laryngeal tuberculosis. In such cases you ought to find tubercle bacilli early in the process.

Don't rely on the microscopical evidence of renal tuberculosis. Remember that in renal tuberculosis the positive diagnosis can best be made by inoculating a few guinea pigs with urinary sediment and watching them develop tuberculosis.

Don't rely on the Von Pirquet skin test for tuberculosis except in children. Remember that many of us have passed through

and recovered from incipient tuberculosis without ever having known it. Such cases later on in life if tested will give a positive Von Pirquet Test. A negative Von Pirquet in an adult is usually very significant in that the individual never has had tuberculosis and does not have it now. A positive Von Pirquet may mean that he has had tuberculosis or that he has it now. It does not differentiate between a past and a present tubercular infection.

Don't use bacterial vaccines unless you know the nature of the offending microbe.

Don't use biological products unless you are acquainted with the rationale of their preparation and action.

Don't expect to cure rabies once the symptoms have developed. Remember that the time to administer preventive treatment is any time within ten days after the infliction of the dog-bite.

Don't kill the dog when he bites a patient. Keep him under observation until he develops rabies. There will still be ample time to administer the Pasteur treatment. You may find the Negri bodies in the brain of the dog if he is killed right away, but the chances are, you will not. The incubative period in man is seldom under three weeks.

Don't make a positive diagnosis of gonorrhea in the female unless you use the blood complement fixation test. There are many cases of uterine discharge which are not gonorrheal. There is no absolute method of identification of the gonococcus even with the Gram stain, unless you can isolate it in pure culture. This is difficult to carry out in uterine or vaginal discharges because of the multitude of other bacteria present which may prevent you from obtaining a pure culture.

Don't swear a man's liberty away in a case of suspected rape from the mere presence of a discharge in the alleged victim. Be sure it is gonorrheal before you say so. The microscope alone in such a case is insufficient evidence.

PROGRESS IN RADIOLOGY OF THE STOMACH, INTESTINE AND APPENDIX IN 1913. Condensed Translation from *Le Progres Medical*, December 20, 1913.

Bensaude has advocated the use of barium sulphate, as less expensive and less toxic than the subnitrate of bismuth. Any such substance may, however, prove dangerous by its weight. Thus, 60-100 grams of bismuth carbonate may cause ptosis of the stomach. Perforation of a cancerous ulcer of the stomach and volvulus of the small intestine has been noted from an emulsion of barium sulphate.

Gregory Cole of New York and Howard Pirlé representing Rosenthal of Munich, showed cinematographs of the stomach by the bismuth-Roentgen method. Gösta Forsell's Atlas of Normal

and Pathologic Anatomy studied by the X-ray, deserves mention.

Bonniot and Rideaux advocate filling oesophageal diverticula with bismuth, in emulsion or cachet, and then watching the stream of bismuth swallowed through the ordinary course of the oesophagus, as more reliable means of diagnosis than the two sound method or the simple administration of cachets of bismuth.

G. Lion has checked the X-ray method very simply, by administering 20 grams of bismuth subnitrate to a dog and killing it after 40 minutes, and making direct inspection. The entire surface of the stomach is found uniformly powdered and the bismuth is well mixed with the meal, though not so uniformly as it is spread over the surface. Sections of mucous membrane were also examined microscopically, after fixation with alcohol, showing the subnitrate and some characteristic crystals of oxychlorid of bismuth.

Paul Carnot, referring to the warning of Beclere and Meriel that blanks in the radiologic image of the stomach cannot be considered pathologic, as one cannot be certain that the walls of the stomach, originally in contact, have been uniformly separated and coated with bismuth, advocates massage to insure that the bismuth comes into contact with all parts of the stomach. (Note: We have personally encountered misinterpretation of radiographs to indicate hour-glass contraction when the absence of bismuth was due simply to jumping from one part of the stomach to another, on account of rapid peristalsis. In one of these cases, the hour glass contraction seemed beyond question, when any one radiograph was inspected *but* the contraction was at a different zone in different pictures taken within a few minutes of each other. Fluoroscopic examination clearly excluded hour glass contraction and showed the rapidity and depth of the contractions to an almost incredible degree, while the general contour of the stomach, with allowance for the passing waves, corresponded exactly to the auscultatory percussion area, just as was found in original experiments in 1897.)

Walther mentions radiographs apparently indicating gastric diverticula, which were excluded by section and inspection. Various communications regarding preferable posture, the gas ball of the stomach and the location of a hair ball by X-ray, combined with manipulations, already abstracted, are mentioned.

Leven and Barret have shown that milk, as sucked by the infant passes the pylorus almost immediately, so that the amount and intervals of nursing depend on the capacity of the small intestine. Siegert states that the intestinal digestion of milk in the nursing, occupies about $3\frac{1}{2}$ to 4 hours and that this is the proper interval between nursings.

The question as to whether bismuth adheres especially to an ulcer is still in dispute, some authorities giving elaborate rules as to the shadows observed, others denying that ulcer can be diagnosed regularly by X-ray methods, although admitting that an old, cicatrized ulcer, with cribriform scar, tends to retain bismuth.

Piret mentions an ingenious device for confirming the diagnosis of appendicitis. A metal bar is strapped over the painful spot. Radiography, several hours after the ingestion of bismuth, shows the ileo-caecal angle and if the two shadows coincide, the appendix is pretty definitely incriminated. Fallacies may, however, occur.

Friedel and Jaugeas emphasize the fact that, aside from operative inspection, the sigmoid is accessible only to sigmoidoscopy and radiologic investigation, the former applying only to the first part of the sigmoid (recto-sigmoid) while the latter with the oblique screen or plate, allow one to note the form, tonicity, length, bends and adhesions of the upper sigmoid. (Note: The more one works with the sigmoidoscope and the more one notes the appearance of this part of the bowel at necropsies and operations, the less significant does the term *sigmoid* become and the less importance one is disposed to attach to ordinary anatomic descriptions. We do not remember ever to have seen a sigmoid which resembled strongly either the Greek letter sigma, or the S Romanum, as the Germans call this part of the intestine. As to sigmoidoscopy, one cannot estimate exactly how much the bowel has invaginated itself over the instrument and one can only say that, at such a distance above the anus, such and such lesions have been encountered.)

GALYL AND LUDYL. Troisfontaines, *Presse Med.*, November 1, 1913, reports favorable results with these new organic compounds of arsenic in syphilis.

INTRA-DERMIC REACTION OF SODIUM IN SYPHILIS. H. R. Fromaget, Bordeaux Thesis, 1913, does not fully support the claims of Loeper, Desbouis and Duroeux but thinks that the reaction is of some diagnostic value, though neither a positive nor a negative result can be absolutely relied on.

CHANCRE REDUX AFTER SALVARSAN. W. Dubreuilh and G. Petges, *Jour. de Med. de Bordeaux*, August 24, 1913, report a case, the differentiation from reinfection being the lack of secondary manifestations, the new chancre appearing on the old site, 20 months after the first infection. They also report similar cases (2) after mercurial treatment.

PARADOXIC TACHYCARDIA OF HYPERTENSION AND THE OCULO-CARDIAC REFLEX. A Mougeot of Royal-les-Bains, *Prog. Med.*, December 20, 1913. The term paradoxic is used on account of the general rule that hypertension slows the heart. As adrenalin also slows the heart by direct action on the muscle, the condition is probably not due to an excess of this secretion in the blood but to an endeavor on the part of the heart to maintain circulatory equilibrium at the point when competence is threatened and would fail if the number of contractions were not increased. The oculo-cardiac reflex consists in a slowing of the pulse when pressure is made on the eyes. The fact that it has been normally present in all but two of the cases of paradoxic tachycardia of hypertension, is evidence that neither the sympathetic nor the pneumogastric is at fault but that the essential trouble is weakness of the left ventricle. In the two exceptions, in which this reflex failed, tabes was present.

BUTTER MILK ON ERYSIPELAS. Arnold, *London Pract.*, has treated all cases during the last 17 years with local applications of buttermilk, with good results.

ALTITUDE CURE FOR A DOG OF HIGH DEGREE. H. Grenier de Gardenal, *Jour. de Med. de Bordeaux*, August 24, 1913, describes the luxurious quarters of a dog, who, not thriving in the fogs of London, was taken to the beneficial climate of the Pyrenees by "his father and mother, I should say his masters." Allusion is made to race suicide, etc.

FRANCO-AMERICAN MEDICAL ETHICS. The *Jour. de Med. de Bordeaux*, August 17, 1913, reprints the two following advertisements from a daily paper: American millionaire, coming express to Bordeaux, would appreciate recommendation of physicians competent to cure his tuberculous daughter and syphilitic son. One hundred thousand francs reward if cured. Address American Millionaire thanks his correspondents and selects Dr. Tancrede of Bordeaux, almost all the letters received recommending him for his tuberculous daughter and syphilitic son.

MESENTERIC THROMBOSIS. Drouin and A Parcelier, *Jour. de Med. de Bordeaux*, August 17, 1913, reports a case in a man of 66, beginning with sudden severe circum-umbilical pain. Operation that evening, revealed 200-300 c.c. of sanguinolent serum in the peritoneum, with some clots, about one meter of small intestine being sharply distinguished by its dark color from the normal bowel. On account of the bad state of the patient, radical

operation was abandoned. Necropsy verified the observation at operation, the necrotic portion beginning 2.20 meters from the pylorus.

IMPERFORATE OESOPHAGUS, OESOPHAGEO-TRACHEAL FISTULA. M. J. Anderodias reported a case of this nature, *Jour de Med. de Bordeaux*, October 5, 1913, although it was admitted that the fistula was not demonstrated. Nothing was done and the child died shortly after birth. Pery and Fieux reported similar cases, with demonstrated lesion. There was general agreement as to a laissez faire policy. The question of syphilis arose in all cases, as a possible explanation of the malformation.

DUODENAL ULCER. Ewald has encountered in the last three and a half years 532 cases of gastric and eighty-two of duodenal ulcer. He found blood in the stools the most constant sign of the latter: it was present in every case with one exception, but not always at the first examination. He declares that about 50 per cent. of all duodenal ulcers are amenable to medical treatment. On the other hand, operative treatment has its drawbacks; in one case the patient had a severe hemorrhage from the duodenal ulcer two months after it had been treated by gastroenterostomy. He advised an operation only in eighteen of his eighty-two cases.

HEPATOCHOLANGIOENTEROSTOMY. Anschuetz (Abst. in *Zentralblatt f. Chir.* 36, 1913, 1408) reports a case in which, at an operation for gall stones, the hepatic duct was injured and re-united with an apparently perfect result, but after some months, severe icterus with complete retention of bile set in; and at the second operation the liver was found much swollen and full of connective tissue, the region of the hepato-duodenal ligament being transformed into a cicatricial mass in which no connection between the liver and the duodenum could be found. The hepatic duct was represented by a cavity in the liver filled with gall stones; on puncturing the liver in this region clear bile escaped. As it was impossible to unite the duodenum with the portal fissure, a hole was bored in the liver with a Paquelin cautery and this was united with a loop of intestine, the branches of which were united by a button. The suture between the liver and the intestines was strengthened with omentum. The result was decidedly favorable; the icterus disappeared gradually, though not completely. Two and a half years later the patient was feeling fine and, although a slight jaundice persisted, the stools had their normal color.

URINARY ANTISEPTICS. J. W. Thompson Walker, *British Med. Journ.*, September 13, 1913. In an instructive paper the author reviews the value of various urinary antiseptics, with special reference to urotropin. The action of this drug depends upon its being split up into formaldehyde and ammonia. This reaction is accomplished in the urine itself when and only when that fluid is of acid reaction. An acidity of the urine which will only just turn litmus paper red will probably not cause any splitting of urotropin into its constituents; the urine must therefore be markedly acid. The normal acidity of the urine is due to acid sodium phosphate, and this body given as a drug is recommended as the best method of rendering the urine acid, though sometimes ammonium benzoate (15 gr.) may be found more efficacious.

Much controversy has raged as to this necessity of rendering the urine acid. The writer regards this as due to the lack of an adequate test for distinguishing formaldehyde from urotropin, which has resulted in an ignorance of the value of an acid urine. In the majority of his cases he checks the conversion of urotropin into formaldehyde by the following method, which he considers very satisfactory, as it will detect formaldehyde in 1 in 150.00. Three solutions are used: (1) Phenylhydrazine hydrochloride 0.5 per cent.; (2) sodium nitroprusside 5 per cent.; (3) sod. hydrate, saturated solution. Three drops of each of the first two solutions are added to the urine and a few drops of the sodium hydrate solution poured along the side of the test tube. A deep greenish-black colour indicates formaldehyde. This changes to green and fades through bright green and yellow. The fluids must be warm. If these tests are negative boil a fresh sample of urine c.H₂So₄ and repeat the test. If formaldehyde is now present the urine has contained urotropin.

The doses used are usually larger than those commonly employed, especially in cases of long standing, but he generally starts with fairly small ones and increases in some cases up to 25 gr. t.i.d. He considers, however, that it is better to give the drug in smaller doses and more frequently in cases where there is frequent micturition. In addition to insufficient acidity two causes render the administration of urotropin ineffective: (1) idiosyncrasy; (2) renal insufficiency.

Combinations of urotropin are of two types: (1) with an acid as helmitol (critic acid) or hetraline (resorcin); (2) with an alkali as cystopurin. The administration of the original drug with acid sodium phosphate will be found superior to either set of combinations.—J. B. Macalpine, in *Med. Chron.*, December, 1913.

SPHYGOMETRIC OSCILLOMETER of V. Pachon, applied to the diagnosis of arterial permeability. J. Guyot and G. Jeanneney, *Jour de Med. de Bordeaux*, September 21, 1913, allude to Moskowitz's suggestion in 1907 that the surface temperature be employed to diagnose the degree of arterial circulation but prefer the oscillometer. They cite a case of incipient gangrene of the left big toe in which the maxima and minima of oscillation of the pulse, showing the following results: Radial artery; 20-10; right dorsalis pedis 12-5; left dorsalis pedis 8-5; right tibio-peroneal trunk 15-4; left 10-5. The readings were the same on two consecutive days, on the second, the artery of the left instep showed an oscillation between 9 and 4.

SERUM THERAPY OF TETANUS. José Penna M. D., *La Semana Medica*, October 30, 1913, recommends the intravenous method of administration. He prefers it to lumbar puncture for, at times, the contracture of the vertebral column and the opisthotonos make the latter operation very difficult.

He believes that the antitoxin is of great benefit to the patient during the tetanic attack and that the nearer to the commencement of the attack the serum is given the greater the result.

When the tetanus is general in its most common clinical variety, the absorption has been affected by the peripheral nerves according to Meyer and Rawson, and to the blood stream by Gumprecht and Zupnik.

With reference to local tetanus, various theories prevail. That the toxin is fixed in the cells of the striated muscles; in the terminal ends of the motor nerves; in the terminal ends of the sensory nerves; in the ganglion cells of the spinal cord, reaching them by the nerve sheaths or by the axis-cylinders.

Experiments tend to prove that in ascending tetanus the toxin travels by the peripheral nerves, while in descending tetanus it is carried by the blood stream. This would account for the fact that in some cases the toxic agent is confined to a single segment in the medulla and in others the whole medulla is affected.

It has been found that when tetanus is provoked by an intravenous injection, there results an almost simultaneous contracture of all the muscles, but when increasing doses are given hypodermatically, the symptoms are partial primarily and general afterwards.

He believes that the tetanus toxin fixes itself in the protoplasm of the nerve cells of the cerebrum—the grey matter preferred. It is probable that the toxin contains at least two elements: A muscular poison and a hemolytic agent affecting the red blood cells.

Behring and Kitasata think that the blood of animals rendered immune by the antitoxin acquires the property of destroying the toxin.

For ten consecutive years Penna has used the intravenous method. He has increased the dosage until now he gives from 100-120cc of the serum at a time. No hard and fast rule can be laid down to determine the dose or the interval between doses in an individual case. The usual method is to inject 100cc into the veins of the patient every 12 to 24 hours during the first three days.

He concludes that the intravenous serum therapy in massive doses, frequently repeated, constitutes the ideal technique in tetanus.

CORRESPONDENCE.

This department is intended for the presentation of news and views not coming within the scope of other departments, and particularly to afford opportunity for discussion and criticism of views elsewhere expressed.

Buffalo, N. Y.

March 14, 1914.

Dear Sir:

I have just returned from Berlin and Vienna where I spent six months studying. I must say that I have found a great change in Medical line in the two cities from what it was seven years ago. Vienna has practically stood still. They have finally finished two parts of the new hospital. The old general hospital is the same as it was years ago. At Berlin there has been great advancement made in post-graduate work, and it is now far superior to what one can get in Vienna. The cost of courses and living are much less in Berlin. Medical instruction in Berlin has not been commercialized as it has been in Vienna. In both cities they have good club rooms for American physicians.

Had a rather rough return voyage—twenty-three days on the Atlantic.

Yours truly,

CHARLES HAASE.

EDITORIAL NOTE

CORRECTIONS. In the editorial on diabetes in the March issue, conflicting statements were printed as to the quantity of carbohydrate necessary to prevent acid intoxication. In each case the quantity should be stated as (approximately) 80 grams. We have never been able to ascertain whether this fact is purely empiric or whether it rests on some demonstrable physiologic principle. Perhaps some of our readers can give information.

The note in the Obituary Department the same month, regarding the liability to errors, was illustrated by the printer's putting an extra e in error.

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ORIGINAL ARTICLES

Gastric Disorders—From a Surgical Point of View

BY CHARLES W. HENNINGTON, B. S., M. D.

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THIS subject of Gastric Disorders is a very fascinating one, because at present there is so much confusion and difference of opinion in the writings of those who should speak and write with authority. The whole subject seems to be undergoing a change. The term "disorder" is used advisedly because of its comprehensiveness and because least restricted to definite meaning. The remainder of the title, "from a surgical point of view," is to indicate the dominant trend of thought, yet the paper is not one of operative detail. By the title it is intended to lay emphasis on the great importance of the new surgical point of view and the influence which this has exerted upon the whole subject of Disorders of the Stomach,—how it has revolutionized entire chapters, how it is putting others to a severe test and how it has added entirely new chapters to the subject.

Historically this divergence of thought and opinion has, I think, a very interesting explanation. On reflecting a little it would seem as though the subject had passed through four very definite periods or stages or lines of development. They seem to me to be the following:

(1.) The earliest being the period of clinical observation of symptoms and signs, of possible causative factors and of deductions therefrom.

(2.) Then came the discoveries of gross and microscopic pathology and the more accurate conception of disease as a change in structure.

(3.) The great period of the introduction of the stomach tube and the analysis of test meals giving us a better knowledge of physiology of digestion and the knowledge of deranged function, or, in other words, pathological physiology of digestion.

(4.) Finally the period of more active surgical intervention and the comparison of symptoms with the exploration of the whole abdomen, giving us a more precise operative pathology, that is, a "pathology on the living."

These four periods or stages have succeeded each other in point of time both as to their beginnings and their gaining the ascendancy and for a time predominating. They are, of course, not sharply limited from each other. They merge one into the other and still each retains its identity. In a way each continues and represents a point of view. Each can be looked upon as a progression in a given pathway along which much may still be hoped for and achieved.

The fact that these distinctions can be made, must not be taken to imply that we need ally ourselves with any one view point. We must be conservative and constructive. We must hold to that which has been definitely established and yet not fear to put it all to the test, even of this latest surgical criticism. That which is correct will remain.

Of our earliest view of "dyspepsia" based upon clinical observation, much in fact remains today, though it is seldom referred to in recent papers. All will acknowledge the abundance of gastric disorders due to dietetic causes or to noxious substances or habits such as alcohol, tobacco, etc. And we all likewise recognize a large class of stomach symptoms which are merely an expression of systemic derangements and general constitutional diseases, such as Bright's disease, tuberculosis, cirrhosis, cardiac disease, anæmia, etc.

Of the second or pathological period practically all remains, but our viewpoints have changed. We are no longer content with a terminal pathology. We must know disease in its earlier stages. By experimental pathology we want to discover, for instance, how ulcers begin and what are the factors of their causation.

The third period, that wonderful period of physiological study which added a new specialty to medicine, may be considered as beginning with the introduction of the stomach tube in 1869 by Kussmaul. By means of this instrument alone much could be discovered about the stomach, and it has made possible the analysis of test meals besides. Thus the motor and secretory functions of the stomach became a matter of study. We became acquainted with a large number of facts which are of diagnostic importance; and, in addition, there developed a great classification of all sorts of functional disorders.

The present surgical period has opened a controversy as to the accuracy of some of the facts of diagnostic import; and it has severely attacked much of the purely functional pathology of the gastro-enterologist.

In the first place it is beginning to be definitely conceded that in the past we have relied too much upon the so-called negative

stomach analysis in cases in which cancer is suspected. The essential facts remain. In cancer total acidity is reduced definitely as a rule and free acid even more so, but we must not allow the absence of these findings to defer a diagnosis on other grounds or to oppose an exploratory operation. It is unnecessary to go into details as to whether these unsatisfactory examinations are due to the occurrence of cancer on old ulcers or otherwise.

Again, in gastric ulcer it was found that increased acidity was commonly present, but now we know that ulcer may be present regardless of these changes. In fact, their help in diagnosis of ulcer is slight.

That apparently thoroughly well established functional disorder of hyperchlorhydria has now lost its former position and is considerably discredited, due to the factors of causation discovered by the surgeon at abdominal exploration. Moynihan even states a view which may be extreme, namely, that "in *every* case chronic hyperchlorohydria means duodenal ulcer."

In addition, Moynihan, as representative of this new surgical point of view, has given us a distinctly new disease—"duodenal ulcer." He has supplied us with a clinical history of "pain two or three hours after eating and relieved by eating" as distinctive of a new clinical entity. The association of these symptoms with duodenal ulcer is a triumph of the new operative or living pathology. Operative pathology has also given us dilatation of the duodenum as described by Finney as another new disease entity.

Surgery has shown that an unfortunate source of delay in operating for gastric cancer has been due to the test meal, by depending upon and waiting for its late pathognomonic type. Pain and the presence of food remnants indicating obstruction at or near the pylorus are much earlier and much more important. Add to these a palpable tumor moving with respiration and the diagnosis is sufficiently probable to justify exploration. The study of bi-smuth meals by the Roentgen ray seems to be of the greatest value as evidence of obstruction. We should not wait for loss of weight and strength. The early diagnosis does not depend upon any sign or symptom due to the cancer itself, but on the mechanical conditions produced by the growth. The recognition of these mechanical conditions should be the aim of the diagnostician.

As to functional derangements, both surgery and radiography have directed attention to the relatively much greater importance of change in the motor activity of the stomach as compared with the secretory or sensory types. Thus a gastro-enterostomy probably gives relief mainly if not entirely by reason of drainage, that is by its influence on the motor function. But on the whole the surgical point of view is very critical of all these so-called

pure functional disorders and of the entire classification and terminology of functional pathology based upon its main divisions of motor, secretory and sensory activity. Many of the secretory and sensory types have been referred to more precise anatomic diagnoses. Of the motor types some seem to be clinical entities. To clear up this matter, therefore, we will discuss the subject of "the surgery of the functional as well as organic disorders of the stomach."

At first thought it might seem that no matter how marked the degree of success attained by surgery in the case of organic disease of the stomach, the functional disorders were in a class of themselves and not open to surgical attack. In order that we may get a clearer conception of the designation "functional" in this connection, it seems wise to enter upon a definition or explanation. Of course, we need but mention that any organic disease of the stomach is accompanied by functional changes, either slight or marked. Also that various organic disorders in the immediate proximity of the stomach, such as adhesions, kinks, obstructions, and particularly inflammations, may be the causes of changes in the stomach itself and will make themselves evident by definite functional alterations. But in addition to these we have been learning of late that many so-called functional disorders of the anatomically normal stomach are reflex and have their physical basis in organic disease of other abdominal organs either near or remote, such as the duodenum, gall bladder, pancreas, appendix, small or large intestines. Our greatest recent advance has been the recognition of this fact, and it has impressed upon our minds the necessity of searching for and finding such diseases. Yet, when all is said, there remains, it seems, a smaller group of pure functional disorders of the stomach in the nature of pure neuroses of various types, more especially the motor, but, perhaps, to some extent also secretory and sensory. Of the motor variety there are hypermotility and spasm and motor insufficiency and atony. Whether these are open to surgical treatment is the question proposed.

Considered in an absolutely abstract and philosophic way, it must, of course, be granted that it is conceivable that even though the disorder be a pure neurosis, yet a surgical alteration of some sort might produce a favorable functional change and thus result in a relative or complete cure. The probabilities are that this field will be a limited one. From our present knowledge only those of a motor type of neurosis would seem to promise any reward.

We might, for instance, consider operation in a case of pylorospasm. The exploration might in the first place reveal an ulcer

as the real cause of the pylorospasm. But even if the condition were a pure neurosis, as we have assumed, then an enlargement of the pylorus, as with the Finney pyloroplasty, would be of value. In congenital pylorospasm the same operation would seem to be indicated after failure with medical treatment.

Again, in some functional diseases, as motor insufficiency and atony of the stomach, certain surgical measures may be considered after suitable prolonged medical treatment has proven of no avail, and especially if special treatment has been directed against gastropnoia, which is often associated with this condition of motor insufficiency or atony. At operation an associated gastropnoia might be improved. But in this case, too, even if the condition were a pure neurosis, as we have assumed, then an operation, as the Finney pyloroplasty, to widen the pylorus would be of value. This would simplify the work of an atonic musculature. It should be remembered, too, that a functional disease of this kind may ultimately lead to considerable chronic dilatation of the stomach. Thus surgery might be employed in a functional disorder so as to prevent the occurrence of an organic condition.

It might appear from what has been said that the surgical viewpoint was unduly aggressive. If this were so it would be most unfortunate. However, from the correct point of view our diagnostic examination should be just as exhaustive as possible. We should use every procedure at our command. Not infrequently patients would willingly submit to all these measures. Often, as Bloodgood says, they get hundreds of dollars worth of treatment and not one cent's worth of real diagnosis. It would, however, seem unwise in this paper to go into detail as to history taking, physical and laboratory examination, test meals, etc., and radiographic examinations. Thereupon, in this field, a probable diagnosis may be sufficient justification to urge an exploratory operation.

But operations in chronic ailments are often undertaken too hurriedly, that is, not so much as to time, as too hurriedly in so far as to neglect to use those methods which we have at our disposal to determine the probable extent of the disease, and more particularly to determine the patient's resistance powers to operation. We should study the patient to determine his chances of recovery from the operation. This is the work of the medical man who is sufficiently skilled in the newer ways of determining the functional capacity of the heart and vascular system and of the kidneys. It may be that the new functional test as to the liver will ultimately be of service. We should know the operative capacity or vital resistance of our patients. A purely exploratory operation ought not to be undertaken unless we find

on accurate clinical investigation that we are not taking undue chances.

The Exploratory Operation.—The most important question to be discussed in this connection is the degree to which the exploration should be carried out. This should be determined for each individual before the operation is begun. An exploration may be limited or so complete as to include an examination of the interior of the stomach. There are cases in which it would be entirely unwarranted to take the additional risk of opening the stomach even though the exploration is negative to this point. Whereas, in other cases it may be equally unwarranted to close the abdominal wound without having made the most thorough inspection of the lining of the stomach.

The exploration should, as a rule, be extended to all the other abdominal organs after simple inspection and palpation of the stomach has been done. The exploration should be especially thorough as to the duodenum, gall bladder and ducts, pancreas, lesser and greater omentum, appendix, large and small bowel with special reference to the regions of the sigmoid and the lower ileum. It is just the thoroughness of this exploration which will often change the diagnosis from a so-called functional disturbance of the stomach to a definite organic disease of some other abdominal organ.

An exploration should be systematic and thoroughly complete. It can be made a matter of considerable precision. It is a mental exercise, too, in so far as to rapidly recall the various lesions that should be looked for in each locality. Then, even if a definite lesion is discovered, the search should be continued so that no other lesion possibly of like or perhaps greater significance be overlooked.

Some points of special significance may be mentioned, for instance, in the presence of adhesions their cause should be definitely determined in each case. In the diagnosis it should always be stated to what primary cause the adhesions are attributable, for example, old ulcer, gall bladder infection, former inflammatory attacks, foetal peritoneal folds, etc., etc. When one lesion as duodenal ulcer is found, the appendix should be examined with especial suspicion. Enlarged glands in the gastro-hepatic omentum speak as strongly for ulcer as for cancer and their location determines the exact area within which the disease is situated. Ulcers are overlooked for three reasons, either that we are not sufficiently acquainted with their characteristics, which is probably most often the case, or their inaccessible location, or that they are confined to the mucous membrane and do not involve the musculo-peritoneal coats until later. Nodular growths

of the ovaries and pelvic glands both suggest a most thorough examination of the stomach.

Exploration of the interior of the stomach still calls forth considerable diversity of opinion as to its necessity and advisability. The matter must be determined in each individual case. As to the correct method there are several recommendations. It is essential that the patient be prepared for several days by proper attention to the mouth and throat and teeth and by stomach washing and emptying before the operation. Some suggest sterilized food, but fortunately most cooked food is comparatively sterile. Before making any opening into the stomach, it should, of course, be carefully packed off with gauze and withdrawn and lifted from the abdominal cavity as much as possible. The incision should be transverse, that is, at right angles to the axis of the stomach in order to avoid blood vessels. Coffey suggests that before making the incision several through and through stitches be taken on each side of the proposed line of incision. Traction is then made on these and the air in the stomach will rise to this point and so the incision can be made without spilling any contents. The fluid in the stomach can then be dipped out or aspirated with a bulb and rubber tube preferably by using that variety of stomach tube which has a bulb inserted in its course. Then the lining can be mopped dry with moist gauze. The examination may be by sight or palpation. The hand may be slipped into the lesser peritoneal cavity through a tear in the gastro-colic omentum, or a finger may be passed through the foramen of Winslow, and in this way various portions of the stomach may be brought into the incision. A speculum, such as a rectal speculum, can be passed through the incision to the pylorus and through into the duodenum if the diameter is one and one-half inches or less. Others depend upon palpation with the finger passing through the pylorus into the duodenum.

There are many other interesting details as to operative procedure which might be taken up. It has not been the intention, however, to speak on gastric surgery. I have merely attempted to give an exposition of the surgical point of view in approaching any case of gastric disorder.

(Read before the Rochester Pathological Society on October 16, 1913.)

ANGINA PECTORIS WITH TRANSIENT PERICARDIAL FRICTION SOUND. Graham Steell, *Med. Chron.*, Manchester, November, 1913, reports four cases, three typical on angina, comprising his entire experience of 40 years' hospital practice. He has not found an allusion to the combination in text book but has found vague references in monographs.

CLINICAL EXPERIENCE WITH PITUITRIN IN OBSTETRICS.

BY L. F. ANDERSON, M. D., OBSTETRICIAN

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THE value of the extract of the posterior or infundibular portion of the pituitary gland in uterine inertia has been under the consideration of the medical profession approximately for the past four years. That it is of very great value has been fully established as evident from the immense volume of literature covering the subject.

The pituitary gland or pituitary body has always been a puzzle to the anatomist and physiologist. Composed, as it is, of two lobes, it is believed that the earliest researches into the function of the gland failed to develop any substantial discovery owing to the fact that extracts of the whole gland were employed. In all likelihood Dale was the first person to discover that pituitary extract, injected intravenously into a rabbit, would cause contraction of the uterus. This discovery occurred in 1906, and in 1909 Bell read the first clinical paper on the value of infundibular extract in shock, uterine atony, and intestinal paresis. He reported a rise in blood pressure following the injection and powerful contractions in the puerperal, pregnant, or menstruating uterus. It was particularly successful in post-partum hemorrhage from atonic uteri, and was very valuable in Cesarean section.

Frankl-Hochwart and Frohlich of the Pharmacological Institute of The University of Vienna, did considerable work also in directing attention to the uterine action of the extract. Later Foges and Hofstatter in Germany obtained very favorable results from the use of Pituitrin (pituitary extract) in post-partum hemorrhage. Afterwards Hofbauer, made the first attempt to use the drug in the promotion of labor pains, and numerous reports of the value of Pituitrin in labor soon followed.

Observations of Foges and Hofstatter are especially interesting. They administered Pituitrin in sixty-three cases of atony, intravenous or intramuscular injections of 1 to 2 Cc., diluted with 20 Cc. of normal horse serum being given. A few minutes later a very light massage of the previously inert uterus would stimulate the organ to sudden contraction, in which state it remained for a long time, thus preventing hemorrhage. They say in conclusion, "it is certain that in these cases Pituitrin is not only equal but superior to ergotin,

as regards both the intensity and the duration of the contraction." (**Zentralb fuer Gynaekologie**, 1910, No. 46).

Dr. Emil Vogt of the Royal Gynecological Clinic at Dresden, gives his experience in the **Munchener Medizinische Wochenschrift**, Dec. 19 1911, as follows:

"The oxytocic action of Pituitrin (P. D. & Co.) at this clinic was observed in over one hundred cases. After the rupture of the fetal membranes, in the second stage of labor, the physiologic effect of Pituitrin is the most pronounced; the contractions of the uterus follow each other much more rapidly and energetically, and the intervals between pains are decreased. Individually the pains are not more severe, so far as suffering is concerned, even in the case of sensitive women, than they would be in a normal delivery.

"In half of the cases the Pituitrin was administered in the second stage of labor. It failed only once; in all other instances its action was very pronounced. And although we encountered a great many cases of narrow pelvis in Dresden, from 40 to 50 per cent., it was not necessary to have recourse to forceps delivery in a single instance in which Pituitrin was employed. Nor did we observe any tetanus uteri and the consequent injury to the child.

"In a number of miscarriages in which we also put the agent to a practical test, it proved rather unsatisfactory. In three out of seven cases there was a noticeable effect; but twice, in cases of miscarriage in the third and fifth month, it failed utterly, despite repeated injections.

"We used Pituitrin seven times in placenta praevia lateralis, with good success, after the rupture of the membranes. The pains were intensified and the labor shortened, which was in accordance with the principal indication to empty the uterus as soon as possible.

"Our experiences coincide with the clinical and experimental observations of E. Kehrer and show that there is no reason why Pituitrin should not be generally employed in obstetric practice.

"In the second stage of labor the action of Pituitrin is prompt and certain. It serves to accelerate normal deliveries, and may be used to combat secondary insufficiency of labor pains even in cases of narrow pelvis. It is most active in the second stage of labor, but may also be used to advantage in the stage of dilatation.

"According to our experience, Pituitrin is the most ideal oxytocic we possess to-day."

Experiences of other investigators practically coincide with this report.

Among others, Dr. Alfred Studeny of the Moravian lying-in institution at Bruenn may be quoted from the **Wiener Klinische Wochenschrift**, Dec. 21. 1911, as follows:

"In summing up our experience we would designate Pituitrin as the most reliable oxytocic agent known at the present time. Its action is most pronounced in the last stage of labor. In the placental period it seems to prevent uterine atony, but in an existing atony the ergot preparations are still preferable. It is non-toxic and does not require care in regard to dosage. As an oxytocic it represents an exceedingly valuable addition to the obstetric materia medica."

This observer treated eighty-one cases with Pituitrin, which, with the exclusion of instrumental deliveries, amounted to forty cases of spontaneous labor. Thirty-five were occipital presentations, one face, and four pelvic presentations. Twenty-three were primiparae. In the first stage of labor Pituitrin was administered six times with a pronounced oxytocic action. In the remainder the preparation was administered in the last stage of labor. These were mostly protracted deliveries with an average duration of forty-two to thirty-four hours in primiparae and multiparae respectively. The results were excellent, and rarely required a repetition of the dose.

It is now generally conceded that Pituitrin may be safely administered to the parturient woman. It does not produce deleterious effects apparently upon mother or child; in fact it seems to improve the circulation of both, and stimulates the renal function of the new-born child. The mother appears to be in better condition following the administration of Pituitrin and the child is more easily resuscitated if we may judge from the reports of European investigators.

The usual quantity of Pituitrin which is required to exert its full therapeutic effect varies from 1-2 to 2 Cc. although it is most satisfactory to administer approximately 1 Cc., and repeat if necessary. The preparation should be administered hypodermatically, as there is practically no evidence to show that it has any therapeutic value when administered internally.

Pituitrin differs markedly from ergot preparations in regard to the type of uterine contraction produced. In the former, with the proper dosage, the contractions are regular and rhythmical in character, and the uterus is not set in tetanic contraction. Results usually follow the injection of Pituitrin in from three to five minutes.

The indications for the administration of Pituitrin are identical with those requiring a hastening of labor. Thus, it is of value in uterine inertia resulting in exhaustion of the mother and danger to the child; lateral placenta praevia after rup-

ture of the membranes; cardiac disease and threatened eclampsia on the part of the mother, slightly contracted pelvis, and hemorrhage of all kinds.

Pituitrin should not be employed when Cesarean section is indicated on account of pelvic deformity. It is a dangerous preparation to use in cases in which powerful uterine contraction would be a menace to mother or child.

Dr. Oscar Bondy of the Gynecological Clinic of the University of Breslau, reports having employed Pituitrin in the production of labor pains in ten cases, with successful results in eight, partial success in one, and negative results in one. The last case was that of an elderly primipara with a breech presentation, a very large child, and insufficient labor pains. After labor had continued for fifty-four hours, the pains practically ceased, and 1 Cc. of Pituitrin was administered. Slight pains resulted, but, as these soon ceased, labor was terminated by surgical means. The second case was an elderly primipara, thirty-four hours in labor, with only slight pains. Powerful contraction followed the administration of Pituitrin and birth occurred without assistance.

In the eight successful cases observed by Bondy, the duration of labor before Pituitrin was employed varied between twenty-three hours and forty-eight hours, with an average of thirty-six hours. After injections of Pituitrin, labor was terminated in from five to sixty minutes with an average of twenty-eight minutes. The author in the "*Berliner Klinische Wochenschrift*, August 7th, 1911, reports these cases in full and concludes as follows:

"The above includes cases of primiparae and multiparae, all cranial presentations, and one case of twins. It is evident that the labor period in all cases had been prolonged considerably. The fetal membranes in most cases were ruptured; the os uteri was considerably but not completely dilated. Parturition quickly took place after the administration of Pituitrin. If we consider the first figures as representing approximately the duration of the first stage of labor (dilatation period), and the others the duration of the second stage of labor (expulsion period), we see that the average of thirty-six hours in labor before Pituitrin was injected is two to threefold the normal period of the first stage of labor, and that the average of twenty-eight minutes of the second stage after Pituitrin is one-fourth to one-half that of the normal second stage of labor.

"We have had no unpleasant experiences and never observed an injury to the child. As regards trouble in the third stage of labor, we have observed only now and then a slight loss of blood after the expulsion of the placenta, which follows spontaneously. This can be avoided by the administration of

an ergot preparation after the placenta is ejected. The dose of Pituitrin is 1 Cc. subcutaneously, repeated as indicated. For general practice the ampoules containing 1 Cc. are recommended.

Dr. Hans Hermann Schmid, first assistant of the Obstetrical Clinic of the University of Prague, in the "Gynaecologische Rundschau, No. 15, 1911," gives his experience with Pituitrin as follows:

"I administered Pituitrin, of Parke, Davis & Co.'s manufacture, thirteen times in cases of post-partum hemorrhage, five times in Caesarean section, and fifteen times as an oxytocic. After Pituitrin was introduced into the clinic the use of ergot preparations was abandoned, and their absence was not felt. I agree with Blair and Bell that the extract of the pituitary gland will henceforth be indispensable in the obstetrical outfit; those who are aware of the unreliability of ergot preparations must be highly delighted to know that they possess in Pituitrin a preparation that will permanently displace ergot in obstetrics.

"After ascertaining that Pituitrin may be safely injected immediately after the birth of the child, and that, unlike the ergot preparations, it is not liable to produce any disturbances of the placental period, I went a step further and employed it as agent to bring on labor. For this purpose Pituitrin was invariably injected subcutaneously in the Prague clinic, being administered alone in fifteen cases and in connection with an opiate in eight. Of these twenty-three cases there were nine of weak fetal heart sounds, in all of which the umbilical cord was wound about the neck from one to three times. One luteal child was born dead, and one had to be delivered by means of forceps, but the rest were quickly resuscitated after spontaneous delivery.

"I believe it is better to have recourse to Pituitrin than to employ a dilator, as the introduction of the latter is always accompanied by danger of infection. I regard Pituitrin not only as a reliable means for combating atonic post-partum hemorrhage, but as an oxytocic that is superior to all others. Incidentally I have never seen any untoward after-effects following the use of Pituitrin; on the contrary, patients seem to recover much more rapidly from the hardships of labor after its administration.

"Pituitrin is the best and most reliable of all the preparations in use for the treatment of post-partum hemorrhage; it not only surpasses all ergot preparations as regards activity, but is superior to them in another respect; it can be given, without danger, before the placenta is expelled. Furthermore, it is the only certain and safe oxytocic medicament that can

be used to advantage in cases in which the forceps or a dilator has heretofore been employed. The rapid delivery of the placenta and surprisingly small post-partum loss of blood are desirable after-effects. The only undesirable after-effects observed in some of the cases (25 per cent.) were after-pains."

The foregoing quotations indicate the opinion of physicians in the large foreign clinics in regard to Pituitrin in the practice of obstetrics. At the present time the literature covers several thousand cases with a uniform success attending Pituitrin therapy that is surprising indeed. Sufficient has been learned concerning this valuable preparation to enable its successful employment in general practice, as well as in hospital clinics. At the present time Pituitrin forms a very valuable aid to the practitioner and should form a part of the supplies in every obstetrical bag.

A series of ten cases occurring in my practice indicate the favorable action of Pituitrin in cases of difficult confinement. These may be given in detail as follows:

Case 1. A. B., primipara, aged 22, in labor twelve hours. dilatation complete but head high up. At 6.15 p. m., 15 minims of Pituitrin were given hypodermically, a small amount of chloroform administered, and the membranes artificially ruptured. Pains before injection about five minutes apart, not very strong. After injection pains strong, three minutes apart. Manual dilatation of perineum to prevent tear. At 6.40 child was born, weight $7\frac{1}{2}$ lbs. Uterus well contracted, cervical ring firm. No tear, puerperium uneventful. Vertex presentation.

Case 2. Annie R., aged 16. Dilatation complete at 7.15 a. m. Membranes bulging, head low down. 15 minims Pituitrin injected at 7.18 a. m. Child born at 7.35 a. m. Slight manual dilatation of perineum and small amount of chloroform. Puerperium uneventful. In labor seven hours before ecclotic was administered. Vertex presentation.

Case 3. Jennie G., aged 14. In labor nine hours. Pains weak and irregular, about five to eight minutes apart. Dilatation at 11.50 p. m. nearly complete. 20 minims Pituitrin at 11.55 p. m. Pains then became strong, and regular, about two minutes apart; chloroform and manual dilatation of perineum. At 12.20 a. m., May 24th, child born, weight $8\frac{1}{4}$ lbs. No tear. Recovery uncomplicated. Vertex presentation.

Case 4. Alice J., aged 26, primipara, in labor fourteen hours. At 2.00 a. m. dilatation nearly complete. Pains timed until 2.40 a. m., 10 to 8 minutes separated, weak, no advance of head. At 2.40 a. m., 20 minims Pituitrin administered, and membranes ruptured. Chloroform in small amounts. At 3.25

a. m., child born, weight $7\frac{3}{4}$ lbs. First degree tear; one silk worm gut suture necessary. Recovery uncomplicated. Vertex presentation.

Case 5. Minnie R., aged 18, primipara, vertex presentation, in labor twenty-two hours. Cervix rigid, dilatation one-half complete. Patient exhausted, P. 118, R. 28, T. 98.2. Pains weak and very irregular, three to fifteen minutes separated. At 12.40 a. m., 20 minims Pituitrin administered. In three minutes thereafter pains became strong, two to three minutes apart. Manual dilatation of perineum. At 12.58 child was born, weight $8\frac{1}{4}$ lbs. Puerperium uneventful.

Case 6. Mary A., aged 14, primipara, seven hours in labor. Breech presentation. Had severe nephritis during last three months of pregnancy. At 6.00 p. m., dilatation size of a dollar. Pains strong and four to five minutes separated. No advance. 15 minims Pituitrin at 6.30 p. m. At 7.10 p. m., child born, weight $7\frac{1}{4}$ lbs., no tear. Head was easily extracted. Puerperium uncomplicated.

Case 7. Mary B., aged 15, breech presentation, in eighth month of pregnancy. Suffering from nephritis for four months, last few days had temperature ranging from 100 degrees F. to 102 F., also ocular disturbances. Pains at 2.00 p. m., strong, five minutes separated. Dilatation size of fifty cent piece. 20 minims of Pituitrin given. At 2.40 p. m., child born, still-birth. Recovery uncomplicated.

Case 8. Agnes S., aged 20, primipara, twenty hours in labor. At 9.30 a. m., dilatation size of ten cent piece. 15 minims Pituitrin with no appreciable effect. At four p. m., dilatation nearly completed, pains weak, four minutes separated. 20 minims Pituitrin at 4.00 p. m. At 4.30 p. m. child born. Vertex presentation.

Case 9. May Z., aged 28, multipara, in labor five hours. Dilatation nearly complete at 5.00 p. m. Had always had long labors (5th pregnancy). 20 minims Pituitrin at 5.05 p. m. At 5.15 p. m., child born, weight $8\frac{3}{4}$ lbs. Recovery uneventful.

Case 10. Celia R., aged 24, primipara, vertex presentation, in labor fifteen hours. Small pelvis, general nutrition poor. At 2.40 a. m., dilatation complete, pains strong, six to seven minutes separated. 20 minims Pituitrin at 3.00 a. m. Child born at 3.25 a. m. Second degree tear. Two silk worm gut sutures.

In each of the foregoing cases the action was prompt and satisfactory in every way. Following its administration the puerperium seemed to be especially free from complicating conditions and discomfort to the patient. The pains brought

about by Pituitrin were strong and regular and caused the mother to suffer no more than would have been the case without the use of the oxytocic agent; in fact, in some instances it seemed to be somewhat less. Tetanic contractions of the uterus were not manifested. My experience in over sixty-five cases is that only two failed to respond to Pituitrin injections.

It is apparent that the administration of this product considerably lessens the field for the application of forceps. In some cases Pituitrin renders the application of forceps less difficult and far less dangerous by bringing the head within easy reach. There are numerous striking examples in the literature where inertia of the uterus threatened death of the fetus, and wherein forceps application would have been most difficult because of lack of engagement. Pituitrin caused the head to engage in each instance and brought it within reach of the forceps.

In the "American Journal of Obstetrics, for September, 1912, Humpstone alone reports eighteen cases of this nature in his experience.

The consensus of opinion at the present time seems to be that Pituitrin is a remedy par excellence for the promotion of labor pains in the second stage of labor, after the os is fully dilated. Opinions differ somewhat as to its value at an earlier stage, although very little success is believed to accompany its use in the initiation of labor pains for the production of miscarriage before the fourth month.

To prevent hemorrhage during Cesarean section most authors are agreed that pituitary extract is of great value. Gynecological surgeons differ somewhat as to the precise moment at which the injections should be given, but they are fairly uniform in their assertion that it successfully causes contraction of the uterus and the prevention of bleeding.

In conclusion it may be said that Pituitrin is an especially valuable preparation in the practice of obstetrics, on account of its producing contractions resembling the natural uterine contractions. It is also a satisfactory heart-tonic and blood pressure raising principal; and has considerable effect on the bladder and kidneys, rendering catheterization after childbirth unnecessary in most cases. It should be handled cautiously in cases of myocarditis and marked nephritis, especially in the presence of high blood-pressure. Nevertheless it still remains an ideal oxytocic agent and deserves recognition by every obstetrician.

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PALPATION OF THE DIGESTIVE TRACT. Hausmann, *Berliner Klin. Woch.*, No. 32, 1913, emphasizes the value of palpation during expiration or the respiratory pause, never during inspiration (but continuous gentle pressure during several inspirations and expirations, facilitates the descent of the hand or fingers and minimizes reflex muscular spasm, though the actual palpation is better performed during the respiratory pause or expiration.—Ed.) The small intestine cannot be palpated except near the cæcum. (This is not absolutely true. Inflated coils and dense growths or contained bodies can be felt, but not definitely located anatomically.—Ed.). By having the patient raise the right leg, the lower leg being extended, the end of the ileum can be felt crossing the psoas, which is brought out as a thick cord and often mistaken for the appendix. The appendix cannot usually be felt unless it is thickened.

A SIMPLE GRAM TECHNIQUE. Snyder, of Toledo (*Annals of Ophthalmology*, November, 1912:

METHYL-VIOLET STAIN.

R Melted carbolic acid crystals12.5 c.cm.
 Absolute ethyl alcohol25.0 c.cm
 Methyl-violet 6 B (Gruebler) 1.0 gram
 Dissolve, keep in a warm place for twenty-four hours, and filter.

LUGOL'S SOLUTION.

R Iodine crystals 1 part
 Potassium iodine 2 parts
 Distilled water300 parts

A drop of formalin solution 1 in 1,000 in distilled water is placed upon the slide. Some of the secretion is evenly mixed with the drop of formalin solution. A drop of absolute alcohol fixes the slide, being superior to the flame method. Three or four drops of distilled water are placed upon the smear; and to the water is added one drop of the methyl-violet stain. This is left for twenty-five seconds, and the slide is washed. Lugol's solution is now added, and after fifteen seconds the smear is decolorized with absolute alcohol. Wash again and counterstain with a 5 per cent. weak fuchsin for five seconds. Wash again, dry and examine.

STERILIZATION OF MILK BY ELECTRICITY. The bacteriological department of Liverpool University has been conducting experiments to ascertain whether electricity can be satisfactorily utilised for sterilization of milk. The milk enters one end of a tripartite tube of definite size at a known fixed level, and during its passage through the tube is acted on by the electric current. Dr. Beattie, the city bacteriologist, has issued a report stating that this method of sterilization is more economical than, and free of some of the objections urged against the older method. Complete destruction of all coli and similar bacilli, resulted. As these organisms are chiefly responsible for summer diarrhoea among children, the milk sterilized by this process is eminently fit for infantile use. The taste of the milk and its nutritive properties are not altered. The tests so far made on tuberculous milk proved that the tubercle bacillus can with certainty be destroyed. As a result of this report the Liverpool Infant Life Preservation Committee—at whose instance these experiments were made—contemplate installing electrical sterilization plant at their depot for treatment of all milk sold by the corporation—*The Medical Officer*, 12th July, 1913.

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The Touch.

Within a comparatively few years, private hospitality, personal charity, friendly accommodation (which is usually in one direction and is later discovered to be a permanent donation), and the benevolences of the church, have been supplemented by a large number of systematic canvasses for money to carry on the most varied kinds of philanthropy, mostly worthy, but in some instances questionable, and in a few quite plainly involving the element of personal glory if not graft.

Some time ago, we kept track of invitations to contribute. They averaged ten dollars a week on the basis of a stingy response, twenty-five for the modest but adequate one for a poor man, with no assignable maximum. Then came a demand from the educational institution which, for system, multiplicity of objects and broadness of range of what it would like, easily wins first prize in mendicancy. This institution would cheerfully accept as a fairly liberal contribution to minor purposes, all we earn in a year; or the results of a couple of generations of self-denial and prudence, as a very minor donation to major purposes. At this point we ceased to gather statistics and put a rubber band around our check book.

At the risk of seeming to advocate heartlessness, we would remind the profession and especially the younger members, that the average professional income is meagre, that the physician receives no discounts from merchants and mechanics corresponding to what they ask of him, that in addition to intentional professional charity he does from fifty per cent. down to ten per cent. of his work free. In other words, the medical profession is rated popularly, in the various demands made upon it, at a much higher level financially than facts

justify. It seems to us that, for the physician of average means, the normal church and personal benevolences which are the duty of every man, plus his strictly professional donations to philanthropy, plus a very few causes in which he is especially interested, should suffice.

Just a word about the tithe, which is being urged so strongly at present. As we understand it, the tithe of the Bible was a ten per cent. tax levied by the state and church, jointly, on the increase in capital for the year, after deducting ordinary living and business expenses, hospitality and minor personal charities. At present, the state, represented mainly by the municipality and county, appropriates 2% or more of the total valuation of capital, so far as it can be determined, amounting to approximately 15—30% of income from real property, probably much less from other forms of investment. In addition a considerable tax, difficult to estimate, is collected in various indirect ways. The present ecclesiastic attempt at tithing, is a levy of 10%, not on yearly increase after deducting reasonable expenses, but on the entire income, and for church purposes alone.

As we have stated, we do not mean to discourage liberality, but we think it would be well for our readers to consider certain good causes more or less competing with the demands made on them from a multiplicity of sources. For instance, there is a woman in black, very neat but a trifle shabby, calling on your colleagues, ten or twenty years from now, asking for bills to collect, or patients to nurse, or seeking roomers, or almost any kind of occupation calling for the knowledge which a good housekeeper has. The bills are already placed with a regular collector; younger and better trained women are caring for the patients; as to the rooming house, you know what it is like; yes there is a place for a matron or housekeeper, perhaps here, perhaps many miles away but, has she any children? Yes, two or three, but very well behaved. Unfortunately there are many practical reasons why she cannot take the children with her. There is the orphan asylum..... Oh, well, you know the case; it has been presented to you quite often; the problem is solved finally, in some way, sometimes pretty well, oftener very badly. You felt sorry in an impersonal way, but this woman looks like your own wife, grown older and more sorrowful, and you are not there to hear her story. That is one of the philanthropies which ought to be considered when you get a mimeographed letter asking for a day's or a month's earnings, with a receipt blank and addressed envelope inclosed. Another philanthropy is that of a girl, hurrying through a course in stenography, and then seeking a position about which you know a dozen salacious

stories, not often but occasionally founded on fact. Still another is that of a boy, at a ten dollar a week job. He wanted to go to college but his father died, leaving a considerable circle of temporarily grieved patients, a rather imposing amount of bills due, which shrank in the collecting, a library worth rather more than a cent a pound, some instruments worth a little more, and a house too large for the family to maintain. And, if you are very selfish, there is another which strikes us as the saddest of all—a lonely old man, physically handicapped in a keen struggle for existence, perhaps still well equipped mentally, but so considered by pitifully few, hanging at the outskirts of his profession, living in penury, with nothing but memories to sustain him.

Weigh these philanthropies well against the various claims made upon you. Decide wisely, justly, and generously.

Wholesome Imperfection.

Dr. A. Lawrence Lowell's article on the Danger to the Maintenance of High Standards from Excessive Formalism, in the **Journ. of the A. M. A.**, March 14, 1914, reminds us that the majority of leaders of medical thought and pleaders for advanced standards of education, have, themselves, been graduated from medical schools that would scarcely be admitted to Class C at present, provided that they maintained the same standards as in the past, with allowance for changes in actual knowledge.

Some knockers claim that the graduates from the medical college that comes the nearest to ideal standards in matriculation and graduation requirements, methods of pedagogy, equipment, etc., have yet to produce their first really great man. We do not altogether agree with this argument, but the literal statement is difficult to refute, and when we have pleaded that more time should be given, men have been named, within the same time limit, who have graduated from less perfect but perhaps more practical schools, and have actually attained deserved prominence.

One of the best incentives to success, in the best sense, is a humble realization both of personal imperfections and of lack in general and technical training. It ought to be self evident to an intelligent young man that all branches of learning are advancing, and that medicine is advancing rather more rapidly than the average science because it is still rather more hampered by definite lack of knowledge and a strong suspicion of wrong conceptions, than are most other sciences. The better trained a young man's brain has been, the better the medical school has ministered to his comfort, the easier and more ob-

jective it has made his acquisition of knowledge, the more perfectly it has trained him according to present standards, the more he ought to realize his duty to keep up the process. If, on the contrary, he is turned out with a complacent sense of his own perfection and superiority, he might better have entered a medical school with flaws in his spelling and grammar, an entire innocence of foreign languages, he might better have dissected a poorly prepared subject in a room with a frozen faucet, hustled around for obstetric and dispensary experience outside the school, and gone out into the world at the end of two short and inadequate sessions, with a strong sense of his unpreparedness.

The High Cost of Living

As this matter is one of very general interest and not unconnected with either public health or the economies of the medical profession, it is allowable to discuss it editorially, especially as we are inclined to an optimistic view which is not the common one.

The necessities of life include clothing, heat, shelter and food. We do not believe that any of these have increased in price within the last twenty-five years, except food. We expect that most of our readers will disagree with this statement, at first thought. Your clothes cost more than formerly, to be sure, but this is inevitable if you wear shirts with *valvulae conniventes* all over the front instead of the old-fashioned, simple garment; if you substitute silk for cotton; if you buy your outer garments of a man who, instead of working twelve hours a day to the detriment of his health and starvation of his soul, spends six or eight hours a day in an automobile in the summer and half as much in a white waistcoat and kid gloves in the winter; if you pay fifty cents for an article worth ten or fifteen when it is passed over the counter. But, with due care, even very adequate clothes do not, on the average, necessarily cost more today than a generation ago. Coal is up—to about the price which the writer's grandfather paid for it when it first came on the market as a practical commodity—and natural gas is a trifle higher than when it first entered some of the more fortunate fields, but, on the average, fuel does not cost you as many days' work as it did our predecessors, who hauled it from their own woods and split it and brought it in from the wood shed. Indeed, thanks to improvement in heating apparatus, it costs you very little more to have your house heated all over all the time than it did even your father, who bought coal in a city, to have an intermittent supply of heat. Light may be absolutely more expensive than formerly, for similar reasons,

but, for those in the natural gas district, it is cheaper than any comparable means of lighting that man has ever used.

You may pay more for your house than your father or grandfather or your former self, but is it the same house? We do not mean in the literal sense nor do we imply that you are granting yourself greater luxury in the selection of a house or its neighborhood. Taking the same grade of house for the present and a generation ago, the addition merely of a very simple bath room implies an actual expense in interest and up-keep to the owner of at least a dollar a month. The very word *house*, on this and other accounts, means something more than it meant formerly. We contend that the poorest householder saves this dollar a month, not in comfort, but in actual expense, for sickness. Economically, a house consists in an accumulation of human labor—even material really involves labor in the ultimate analysis. The house of today costs at least 50 per cent. more in labor than that of a generation ago. Its rental is not proportionately greater. In another sense, a house is invested capital. A while ago we came across an old family letter in which it was mentioned that the returns from a house were only 17 per cent. To-day the average gross return is 8-10 per cent. and the net income seldom over 5 per cent. In other words, considering what he gets from either the side of labor or capital, the average householder today is getting his shelter at a marked reduction.

Food is undoubtedly higher in price than formerly, but it is, on the whole, food of better quality carrying with it some degree of insurance against sickness and against gross loss by spoiling. Wheat flour costs almost exactly the same as it did seventy-five years ago. Sugar, tea and coffee have decreased in price. So have water and ice, if we count labor and safety. If one benefits by advance in knowledge, understands what foods he needs, and realizes that many articles that were formerly considered luxuries and scarcely of any food value are not only more pleasing to the palate but actually cheaper, comparing physiologic values with price, and if, in addition, he takes the trouble to buy certain things in small wholesale lots, he can set just as good a table today as twenty-five years ago, for the same cost.

The increase in many prices represents the practical development of democratic ideals. Every direct or fairly direct purchase of labor means a greater expense; in other words, a fairer sharing of aggregate wealth. But most articles produced or manufactured on a large scale are cheaper at a high wage for labor than the same or supplanted articles produced or manufactured on a small scale at a low wage. To take a concrete example, cobblers by advancing their prices commensurate with other

laborers have practically driven themselves out of business, but the consumer can buy shoes, throw them away when they get to the stage of patching or soling and buy new ones, at not much if any greater aggregate expense than his father or grandfather underwent for less pleasing footgear. Moreover, labor saving devices have rendered it possible for the average family to dispense with the direct expense for labor, especially domestic labor, which a family of the same means would have been obliged to employ a generation ago.

For the average family, we are inclined to believe that the cost of labor saving devices and the increased price of labor directly employed, are offset by the saving which they entail, not in comfort nor in actual leisure, but in other expenses and in time saved which can be made directly profitable. For example, the two items of hardwood floors and a vacuum cleaner, representing a comparatively slight initial expense, eliminate almost entirely extra wages for house cleaning. They afford, also, the comfort of being free from these periods of domestic chaos, of feeling clean all the time; they eliminate the liability to certain sicknesses from exposure and physical strain, and they allow the use of floor coverings of greater elegance, higher initial cost but of greater durability.

There has never been a time when the average citizen had so many opportunities for self-improvement, recreation and even entertainment at a small cost as at present. But, the temptation to an easier, more intellectual or more pleasurable existence, tends to extravagance in many directions. It is scarcely logical to expect as much prosperity from eight rather easy-going hours of labor as from ten hours under pressure, but this paradox would undoubtedly be achieved if the extra two hours were not occupied with spending money in ways that further reduce the efficiency.

There never was a time when the compulsory or voluntary taxation of the wealthier and more efficient part of the community provided so liberally for the comfort and protection of the poorer or less efficient part. This fact has resulted in increasing the stress of living for a large part of the community. We think it must be recognized that, from the philanthropic standpoint, the community cannot be fairly divided into supporting and assisted or supported portions, but that neither compulsion at the hands of the government nor too great suasion at private hands should compel the middle class to spend more than a very insignificant amount in benevolence which they do not ask for themselves but which, on the other hand, they cannot afford for others except at undue sacrifice. Our taxing authorities, charitable and religious institutions, are all at fault in this particular,

and we believe that the enormous sums of money for philanthropic purposes, levied against poor taxpayers, or begged from the same class, and the army of philanthropic executives and workers taken from directly productive occupations, have a good deal to do with the High Cost of Living. The same work should proceed, but with rigid economy, with no waste on the idle and dishonest, and the burden should be carried by those able to bear it.

In the aggregate, the community gets more comfort, for fewer days of less arduous labor, than ever before. The complaint of the H. C. L. amounts largely, therefore, to a complaint that the average man cannot enjoy still greater luxury than he does. The complaint does not even mean, in the relative sense of numbers, that one class is exploited for the benefit of another. It comes most loudly and most numerously from persons whose grandfathers if not whose fathers were, in a sense, exploited for the benefit of a small, favored class, and who bore this exploitation without complaint. And their grandsons, or even sons, in complaining that things and labor cost too much, are virtually demanding that they should be allowed to exploit precisely the same class from which they have emerged.

The possibilities of living have increased enormously within a few years. For example, the great majority of automobiles are owned by persons who, under the conditions of twenty-five years ago, would never have dreamed of owning a carriage, scarcely even a buggy. They spend on this one luxury—we are not speaking now of commercial vehicles or those used in business to facilitate the earning of as much or more money than the automobile costs—more than, under those conditions, would have been spent on all items beyond absolute necessities, with a more rigid line between necessities and luxuries than at present, yet they complain about the H. C. L. Such a complaint implies one of two things, either grudging a commensurate degree of comfort to the hard working class or a demand for more luxury than the world's progress has yet rendered possible.

Editorial Announcement. The April issue was delayed a few days in mailing, for reasons that could not be prevented. Owing to a change of printer, the present issue will probably also be a few days late, and it is possible that some errors may occur until the work of printing is again systematized. A considerable number of plates used to illustrate articles in the JOURNAL have come to light, some of them several years old. These will be held for authors who may care to claim them, until June 1, when they will be destroyed.

OUR CONTEMPORARIES

The May issue of the Medical Review of Reviews will be a woman's number, all the contributed articles being from distinguished women physicians. We published such an issue in June, 1896, and are disposed to issue another.

The American Medical Journal holds that Utah leads the states because it has a law passed in 1907 prohibiting any board of health, education, etc., to compel vaccination.

Medical Freedom mentions an epidemic of smallpox in Minto in which nine members of a family who had been vaccinated, contracted the disease, the only member escaping being a girl who escaped vaccination. The Massachusetts Senate passed a bill on April 10, providing that opposition to vaccination shall not exclude a pupil from school. We would be pleased to have definite information as to the Minto epidemic, but have not been able to locate the place.

BOOK REVIEWS.

Books mentioned may be inspected at and ordered through this office. So far as possible, books received in any month will be reviewed in the issue of the second month following.

A Reference Handbook of the Medical Sciences; embracing the entire range of Scientific and Practical Medicine and Allied Science. By various writers. Third edition, completely revised and rewritten. Edited by Thomas Lathrop Stedman, A. M., M. D. Complete in eight imperial quarto volumes. Volume III. 934 double-column pages, illustrated by 659 engravings and 7 full-page plates in colors. \$7 cloth, \$8 leather, \$9 half morocco. Wm. Wood & Co., New York.

The third edition of the Reference Handbook maintains the high standards of the preceding editions. This volume contains 539 articles, some very brief, as in the case of drugs of slight use, names of botanic and zoologic groups, many elaborate monographs. The brief articles are perhaps equally valuable since they virtually extend the usefulness of the Handbook to include the function of a dictionary. Biography and history are included in the scope of the work, as well as the various branches of medical science proper. The publishers have done their part of the work well. The colored plates are especially good. The two Buffalo editors of this journal are included in the list of authors. A work of this sort—

which is equivalent to saying **this work**—should be placed on a readily accessible shelf and used as a dictionary and text book for reference.

Formulaire de Therapeutique Clinique, Dr. L. Pron, with the collaboration of Dr. A. Cantonnet, in ophthalmology. Second edition, revised and enlarged, Librairie Maloine, Paris. 544 pages, 6 francs.

In this compend, the alphabetic arrangement by diseases, etc., is employed. It includes, however, such topics as altitude, marine climate, sea baths. Diseases of the eyes, ears, etc., are considered in special sections, as are poisons, a review of clinical chemistry, vaccines, etc. An alphabetic index of drugs concludes the volume. We strongly advise our readers who can read French to use this book as a convenient way to acquire hints as to practical therapeutics, in which the French excel.

Communicable Diseases, Public Health Bulletin No. 62, by Asst. Surgeon-General J. W. Kerr of the Public Health Service and A. A. Moll, A. B. Published by direction of the Surgeon-General.

This is a paper-bound volume of 700 pages, containing an analysis of the laws and regulations in force in the United States, as well as considerable matter of general interest. It is estimated that 300,000 deaths and 3,000,000 cases of communicable diseases may be obviated by proper precautions.

Pathfinders of Physiology. J. H. Dempster, A. B., M. D., Editor of the Detroit Medical Journal, published by the Detroit Medical Journal Co. 66 pages, illustrated.

This is a scholarly presentation of historic medicine, the biographies being carefully selected to mark the progress of this science. This method impresses us as much more instructive than mere antiquarian interest in medicine or than the study of the medical history of a given period. The first chapter deals with the circulation and especially with the discoveries of Harvey, Asellius and Pecquet. Digestion involves the discussion of several chemists and physiologists of the 17th and 18th centuries, and the classic investigations of Beaumont on gastric fistula, as well as those of Claude Bernard on the glycogenic function and vaso-motor nerves. In respiration and the nervous system, medical history goes back much farther, while cellular physiology, though anticipated in the 17th century, is mainly the work of the 19th. Enough biography

is included in this work to enable the reader to feel acquainted with the personality of the men discussed, perhaps to understand how they reached the significant results which made them famous. But Dr. Dempster's book is not essentially a series of biographies nor a chronicle of events. He has selected men and discoveries merely as landmarks in the logical progress of physiologic science. He teaches the history of physiology by biographies, somewhat as a master of medicine or surgery might teach principles by a logical sequence of selected cases in a clinic. Thus his book is not so much a record of events as a study of forces. For a work of a historic nature, in medicine, this is almost a unique method. It gives the reader not only a grasp of the subject but more than a hint as to how medical history ought to be presented.

Ethnozoology of the Tewa Indians. Junius Henderson and John Peabody Harrington. Bulletin No. 56 of the Smithsonian Institution, Bureau of American Ethnology.

This is a study of the various forms of animal life indigenous to or introduced into the region, with the Indian names for them, whenever obtainable. Some interesting sidelights are cast upon the native language, especially in regard to the formation of names, and the indication of age, sex, etc. As in our own vernacular, the Indian sometimes confused many species or even genera under a general word, sometimes used distinct names for closely related forms of life. For many of the smaller and less conspicuous animals he had no name at all, just as we fail to recognize objects in nature which are neither especially useful, nor harmful, nor striking. Studies of this sort are of the greatest value, especially because the habits of life depend so largely upon the lower animals available for food, or other economic use, or which suggest superstitions or which are sources of danger. It is all the more important that these studies should be made soon, before aboriginal customs are too strongly modified by civilization and before the fauna of a region is too much altered by the annihilation of certain species and the introduction of others.

A Synopsis of Medical Treatment. George Cheever Shattuck, M. D., Boston, published by W. M. Leonard, Boston, 2d edition, revised and enlarged, 96 pages, \$1.25.

This is a brief compend, based on the accepted practice at the Massachusetts General Hospital. Cardiac Insufficiency, Nephritis, Acute Infectious diseases, and a Synopsis of Drugs,

comprise the chapters, various tables following. 23 drugs, vaccine virus, typhoid vaccine, tuberculin, normal salt solution and alcoholic beverages are singled out for special mention; 14 more drugs are merely listed as valuable for occasional use and 20 in common use. The chapters are more inclusive than mere mention might indicate; for instance, under cardiac insufficiency, most of the common forms of heart disease are considered.

There are two ways of regarding a work of this nature. It affords the student a good, practical conception of certain principles of therapeutics applicable to the common diseases which he will be called upon to treat, and a good working familiarity with a few drugs and other therapeutic measures. The same principles can be extended and the armamentarium can be increased, almost without limit. Such a work is like a geography which gives the states, 20 or 30 cities, ten or twelve rivers and the Great Lakes. The student is not bewildered either with a mass of detail or with a variety of salient points which he cannot remember. He is inspired with self-confidence and he is well prepared to get a rating of 75% on 75% of the problems with which he will ultimately be confronted.

On the other hand, the comfortable narrow horizon which shuts in his little world inevitably magnifies the relative importance which he will attach to himself, the problems which he realizes, and the means with which he is prepared to combat those problems. At the same time, the infinity of the real distances in medical science, the real weakness of the individual, the importance of the problems which are not close at hand and encountered daily, the value and the immense variety of the means with which a solution of these problems must at least be attempted, the futility of tabular views in any science, are concealed by the horizon. We do not pretend to say which of these standpoints of criticism should be adopted; but leave the decision—if a decision can be made—to those more expert in medical pedagogy.

Buffalo State Hospital. 23d Annual Report to the State Hospital Commission, for the year ending September 30, 1913.

In spite of 354 discharges, the patients increased from 2,025 to 2,063, the average daily population exclusive of paroles being 1993, the rated capacity of the hospital being 1,684. With perhaps unconscious humor it is stated that "excluding the number who died, namely 150, the destination of other patients discharged was as follows: home with members of family 162; to friends or suitable occupation 14; for deporta-

tion 20; transferred to other hospitals or homes 8." The condition of patients on discharge is better than in the Metropolitan district and practically all patients discharged are on parole, reporting regularly as to progress, needs and troubles. 18 major operations and 95 spinal punctures were performed, and about a thousand intercurrent diseases or non-operative surgical conditions independent of the mental condition were encountered. About 120 patients were confined to bed, on the average. 5 cases of typhoid, 35 of tuberculosis, and a considerable number of other acute infections were treated. A number of interesting autopsy and clinical reports are included. The yearly per capita cost was a few cents less than \$200. A brief history of the institution is presented, including a biography of the late Dr. J. B. Andrews, who preceded Dr. Arthur W. Hurd as Superintendent. We congratulate Dr. Hurd—and still more so the patients and the state at large—on the economy and efficiency of the management of the hospital. Reports are usually dry and uninteresting reading. This one, without undue prolixity or the inclusion of extraneous matter, is permeated with good will and kindly interest in colleagues and patients. Without attempting to present in full the technical scientific work done at the hospital, it contains much of special professional interest.

Chemical Pathology. Being a Discussion of General Pathology from the Standpoint of the Chemical Processes Involved. By H. Gideon Wells, Ph. D., M. D., Professor of Pathology in the University of Chicago and in Rush Medical College, Chicago. Second Edition, thoroughly revised. Octavo of 616 pages. Philadelphia and London: W. B. Saunders Company, 1914. Cloth, \$3.25 net.

The first edition of 549 pages has been a favorite with the writer since 1907. Most of the attention to pathology has been along the lines of histology or of perversions of physiology without definite regard to chemie conditions. The study of pathology from the strictly chemie standpoint throws light on many problems and even from the clinical standpoint, it should not be neglected. It should, indeed, be realized that the present author is dealing rather with clinical phases of the subject than with recondite analytic methods. In other words his book is a presentation of principles rather than of chemie details. Having made something of a hobby of chylous exudates, we beg leave to call attention to the fact that there are a good many interesting details that might be added to this section. The section on zootoxins presents a phase of pathology on which most medical books are silent, and which

is of great interest though, fortunately academically so to most physicians of this part of the country. Few realize, for example, the terrible virulence of the sea snakes of the Indian Ocean, far exceeding that of the rattler or the cobra. The rarity with which such snakes have the opportunity to bite human beings renders them almost an unknown quantity. We understand that poisonous sea snakes of the same species exist on both sides of the Isthmus of Panama—an unaccountable fact, if it is a fact. We trust that, in future editions, the zootoxins of certain corals and other fixed animals will be considered. Being so fortunate as to possess a specimen of the duck bill, that curious mammal which lays eggs and which is so nearly extinct that it has no commercial value as a fur-bearing animal, we are interested to know that the male has poison fangs on its hind feet, and thus to be able to identify the sex of our specimen. Apropos of the statement that most snakes have a strongly toxic serum—even when not provided with poison fangs—a possibly significant value is given to the knowledge of furriers that the duck bill is not attacked by moths.

In calling attention to certain rather unusual topics, we have perhaps given the impression that Wells has failed to follow the beaten paths of pathology. Such is not the case. The various pathologic processes are systematically described but from a standpoint which has been too much neglected. While chemistry of certain secretions and excretions, of exudates, etc., has long been applied for diagnostic purposes and while quite satisfactory discussions of the chemistry of certain conditions, as gout, diabetes, etc., are commonly included in medical literature, the general study of pathology along chemic lines has not attracted the attention of the profession to the extent which it deserves. The present book, therefore, opens up a field for speculation and yields a harvest of information which should be gathered.

A Manual of Clinical Diagnosis by Means of Laboratory Methods, Charles E. Simon, B. A., M. D., Baltimore, eighth edition, 809 pages, 185 engravings, 25 plates. \$5.00. Lea & Febiger, Philadelphia and New York.

The seventh edition contained 778 pages, 168 engravings and 25 plates, and was published in 1911. Simon's Clinical Diagnosis has been a standard work from the appearance of the first edition, when it appealed to the medical public solely on its merits. With added prestige, the author has relaxed nothing of his vigilance. The present edition differs from the seventh mainly in four particulars: the inclusion of the

methods based on the principle of protective ferments as elucidated by Abderhalden; the revision of the technic of the Wassermann reaction; the complement fixation test in gonorrhoea; the application of modern methods of determining the existence and extent of renal disease. We bespeak for the present edition the well deserved favor which previous editions have found.

Diagnostic Symptoms in Nervous Diseases. By Edward L. Hunt, M. D., Instructor in Neurology and Assistant Chief of Clinic, College of Physicians and Surgeons, New York City. 12 mo of 229 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1914. Cloth, \$1.50 net.

The first chapter deals with the examination of a nervous case. Deformities, paralysis, tremors, gaits, ataxia, convulsions, reflexes, the eyes, speech disturbance, electric reactions being some of the other titles of chapters. Tabulations are frequently employed and the text is lucid and brief. This work was written at the request of many students, to obviate the trouble of hunting for diagnostic signs in more comprehensive text books. Generally speaking, the diagnosis in the sense of naming a disease technically, is of greater relative importance in neurology than in medicine generally. In a considerable number of nervous diseases, the work of the physicians is practically completed when the diagnosis is made, the condition being incurable and sometimes being best cared for in an institution. Again, the diagnosis is more apt to represent a definite pathologic condition than in general medicine, the nomenclature of neurology having sprung up coincident with pathologic advance while general medicine still uses to a large extent the earlier, empiric and popular disease names. As in other fields of practice, an accurate differential diagnosis often implies successful therapy.

State Board Questions and Answers. By R. Max Goepp, M. D., Professor of Clinical Medicine at the Philadelphia Polyclinic. Third Edition Thoroughly Revised. Octavo volume of 717 pages. Philadelphia and London: W. B. Saunders, 1913. Cloth, \$4.00 net; Half Morocco, \$5.00 net.

These questions are systematically grouped under chemistry, anatomy, physiology, surgery, hygiene, etc., being selected from various state board examination papers, preference being given to the larger and more representative states. The answers are brief, sometimes, therefore, somewhat incomplete and dogmatic. For example—though in each instance the answer corresponds with our own opinion—the unqualified

condemnation of multiple vaccination and the omission of flies as a usual method of communicating the typhoid "poison." Reference is facilitated by an elaborate index.

The Practice of Pediatrics. By Charles Gilmore Kerley, M. D., Professor of Diseases of Children, New York Polyclinic Medical School and Hospital. Octavo of 878 pages, 139 illustrations. Philadelphia and London: W. B. Saunders Company, 1914. Cloth, \$6.00 net; Half Morocco, \$7.50 net.

Particularly commendable in this book is the practical and somewhat heterodox discussion of the subject of infant feeding. These quotations give an insight into the common sense views characteristic of the book: "I am confident.....that of ten average girls in any station of life, provided they could have the benefits of fresh air and good food from infancy to adolescence, successful nursing mothers could be made of eight..... The most successful nursing age is 20-35. I have seen successful nursing—in a girl of 14, in a woman of 52, in the much abused society girl, while I have seen it fail in peasant women....' We were going to criticize the author for the spelling rachitis but find it supported by Webster, although it ought to be rhachitis. The labor of any author in paediatrics is increased by the tendency to include in the specialty any medical condition occurring in a child. This does not seem to be any more logical than to include fractures of limbs, pneumonia, etc., in works on gynaecology. Of course, any disease to which children are especially liable or which is substantially modified by age factors, should be included. However, the present demand is that an author in paediatrics should write a nearly complete practice of medicine and this task has been well performed in the present volume.

Medical Gynecology. By S. Wyllis Bandler, M. D., Adjunct Professor of Diseases of Women, New York Post-Graduate Medical School and Hospital. Third Thoroughly Revised Edition. Octavo of 790 pages, with 150 original illustrations. Philadelphia and London: W. B. Saunders Company, 1914. Cloth, \$5.00 net; Half Morocco, \$6.50 net.

This work may be considered a reaction to the gynaecology of a quarter of a century ago or more, before the term came to imply major surgery. Save for the names of the organs on which he operates, and the sex of his patients, the modern gynaecologist is, for the most part, an abdominal surgeon, and the technic which he has developed and the experience which

he has acquired leads to the question whether it is not a violation of general principles of economics that he should limit his work to these particular organs and to patients of one sex. While experience taught that much of the early gynaecology was "puttering" and even dangerous, either in the sense of neglecting conditions demanding radical operation or in the direct sense, the reactionary opinion has also been growing, that many individual cases might better be treated by palliative methods, at least provisionally, and that the less radical methods of the older gynaecology may, when properly applied achieve radical cures. Our armamentarium has also been considerably improved, especially against the venereal diseases and even certain forms of sepsis which play so important a part in gynaecology. Thus, a genuine field has been reopened for conservative gynaecology, deserving at least the respectful attention of surgical gynaecologists and, with proper precautions adapted to the general practitioner and even to specialists who do not care to enter into major surgery. This book is, therefore, timely. It is carefully written, it is conservative in its conservatism, in no way justifying the rashness of the man too cowardly to operate. We are glad to note that the author heads one chapter with the work Colpitis; sorry that he uses the word vaginitis as a legitimate synonym instead of introducing it merely to prevent any misunderstanding of the proper term; doubly sorry that further, he uses the abominable term endocervitis without apology or suggesting a correct term.

The Principles of Pathologic Histology. By Frank B. Mallory, M. D., Associate Professor of Pathology, Harvard Medical School and Pathologist to the Boston City Hospital. Octavo of 677 pages, with 497 figures containing 683 illustrations, 124 in colors. Philadelphia and London: W. B. Saunders Company, 1914. Cloth, \$5.50 net.

In contrast with the book by Wells, reviewed above, this deals with structural changes as characteristic of disease. Without explicit claim, perhaps even without realization of how well he has performed the task, Mallory seems to us to have presented a work on the general philosophy of pathology. Having recently gone over one of the older standard pathologies, we are particularly impressed with the simplification of ideas as represented even in the table of contents of this book. With due apology, it may be said that pathology does not appear to be so scholarly and recondite a subject as formerly. Even the newer terms represent a more definite understanding and, especially in the chapter on tumors, a conception of

mutual relations which reduces the number of individual and separate items to be remembered. The conception of inflammation stands about as it has for a quarter of a century, except that the attempt to limit it to bacterial cause is abandoned and it is better and more broadly understood. With the general simplification due to more definite knowledge, we note, paradoxically, an abandoning of the somewhat far-fetched attempts at rigorous classification. In particular, the antithesis between retrograde and proliferative processes is absent and we do not even find the orthodox discussion of hypertrophy and hyperplasia although these subjects are considered to some extent in other places. Instead of the expected section on bacteriology, we find various bacteria, protozoa, even the trichinella (nee trichina) spiralis, etc., discussed under the non-committal heading of special injurious agents.

A Treatise of Diseases of the Skin. For the use of advanced Students and Practitioners. By Henry W. Stelwagon, M. D., Professor of Dermatology, Jefferson Medical College, Philadelphia. Seventh edition, thoroughly revised. Octavo of 1250 pages, with 334 text-illustrations, and 33 full-page colored and half-tone plates. Philadelphia and London: W. B. Saunders Company, 1914. Cloth, \$6.00 net; Half Morocco, \$7.50 net.

This work has been so well known in its earlier editions that it is scarcely necessary to review it in detail. It will be noted that its title definitely, though courteously, separates it from the numerous medical books published at present with the aim of reaching knowledge by an easy short cut. It is a full, systematic treatise, thoroughly up to date, intended for the use of those who wish full details and who are willing to give time and serious attention to the subject. None the less, it is the kind of book needed by the general practitioner if he attempts to deal with this specialty at all, for a little knowledge is dangerous and one who relies on text books for reference needs full instruction and good pictorial aids, even more than the expert.

CERVICAL RIB. R. Waterhouse reports a case of cervical rib in which in addition to atrophy of the small muscles of the left hand, there was paresis of the serratus magnus on both sides. Prior to the operation, at which a rudimentary rib on each side was removed, there was slight irregular pyrexia which suggested the presence of inflammatory changes in the nerves of the brachial plexus as a result of pressure.—*Bristol Med. Chir. Journ.*, Sept. 1913.

CORRESPONDENCE

This department is intended for the presentation of news and views not coming within the scope of other departments, and particularly to afford opportunity for discussion and criticism of views elsewhere expressed.

DEPARTMENT OF PUBLIC WORKS**Bureau of Engineering.****Buffalo, N. Y.****March 2d.**

Dr. John D. Bonnar,
144 Jewett Avenue,
Buffalo, N. Y.

Dear Sir:—

I had the honor to appear before the Erie County Medical Society on February 16th, at my own suggestion, with expectation of opening a sharp discussion and fully succeeded, but with sore disappointment that in a full hour discussion, no attempt was made by any physician to meet the line of argument put forth.

The remarks made were not intended to be local or personal, but rather as from the engineer to the physician, to explain why the medical profession continues to talk so much about the one minor disease, typhoid, in which the engineer may be expected to lend material assistance, and so little about the more prevalent communicable disease, commonly considered as beyond engineering assistance.

To be specific, after a season of unusual gales and roily water, January's vital statistics for Buffalo showed deaths: typhoid 3; diptheria 4; syphilis 6; whooping-cough 12; tuberculosis, pul., 52. Several physicians have seen fit to make severe strictures on water as producing typhoid—why has not the engineer an equal justification to ask, as to these other diseases?—and to ask why you cannot, with equal expenditure, save at least two lives, from these other diseases, to one from typhoid by water filtration?

I am fully aware that this was a novel view-point to many of you and you were not prepared to meet it, yet it is a definite issue, which is up to you to meet, not by generalities, but by sober and logical argument.

The engineer has been brought into the public health problem and must apply his principles to it. He may make unwarranted assumptions, through his limited knowledge of medicine but he will insist on being shown his errors, and the

physician should be open to meet these arguments, on their merits, and not assume to ignore them.

I await your answer.

Yours very truly,

GEORGE H. NORTON,
Deputy Engineer Commissioner.

March 23d, 1914.

George H. Norton, Esq.,
Deputy Engineer Commissioner,
Buffalo, N. Y.

Dear Sir:—

In replying to your communication of the 2d. inst. I would do so in a wholly individual capacity, as we assume the questions propounded in your letter, are such as all medical men are fairly familiar with, and would gladly answer, were such directed to them. That the lot has fallen upon me, while appreciated, is also accepted with full knowledge of its responsibility.

Your paper, presented to the Medical Society of Erie County, on the 16th ultimo, upon the subject of "Water and Sewerage Systems of Buffalo," which you say "opened a sharp discussion," on the part of the doctors present, but "fell short of your expectation in answering the question, "Why you cannot with equal expenditure save at least two lives from these other diseases—diphtheria, syphilis, whooping-cough, and tuberculosis, to one from typhoid by water filtration?" (I assume you meant to include also scarlet fever and measles).

As a civil engineer, your service deals with non-vital, material bodies, while physicians, in their service, deal with vital physical bodies. Yours, constructive, ours, instructive; yours physical, ours, chemical. Thus in the matter of health, the tangents of our spheres of influence, approach each other in the matter of public sanitation.

Needless to say, we are, as citizens, alike related to the public welfare, but in professional work, meet only on sanitation of water and sewer systems.

Typhoid fever, being a germ disease, mostly transmitted through water, affords that common ground, upon which the skill of the physician and the constructive technique of the engineer are needed to secure the fullest efficiency.

The other infectious diseases, above mentioned, being mostly transmitted through the air—save venereal—present scientific problems, which, you will readily appreciate, must be met entirely by the physician, without any possible assistance from the engineer.

According to statistics, upon the death-rate in Buffalo, we find the following significant figures:—

	In 1882	In 1913
Buffalo's Population	175,000	450,000
Deaths From:		
Scarlet Fever	329	15
Diphtheria	290	41
Whooping-Cough	54	30
Measles	85	68
Pulmonary Tuberculosis	356	566
Typhoid	121	68

The contrasts are so conclusive that no argument is needed to establish the proof of our having reached and even greatly exceeded the quite arbitrary demand of saving "with equal expenditure—at least two lives from these other diseases, to one from Typhoid."

After the expenditure of some five million dollars for water purification, we find the effectual means in the cheap "Chlorination" process, which is chemical and bacterio-logical and not an engineering problem.

With but about one fourth of a million of dollars of public expenditure for hospitals for the care of all the other diseases mentioned, than typhoid, the foregoing cited decline in death-rate, make further comment needless.

Coupled with these is practical immunization, by means of typhoid vaccination, as proven by results in U. S. army, as applied by Surgeon-General Dr. O'Riley, the fruit of labors by such physicians as Ehrlich, Wright and Pasteur, in quest of scientific means of meeting and conquering human disease.

With the expenditure of but a fraction (not the "equal" amount you suggest) for segregation hospitals, a practical elimination of the infectious diseases would be possible.

You must certainly agree that even within the short confines of a letter, your desire of being shown, is fully met by the foregoing facts.

Yours very truly,

JOHN D. BONNAR, M. D.

TOPICS OF PUBLIC INTEREST

The Syracuse University Medical College celebrated the opening of the new Dispensary March 30, 1914. During the afternoon the building was open for inspection. It is the consensus of expert opinion that this new Dispensary Building is as nearly perfect as careful study of dispensary needs, ar-

chitectural ability and skilled workmanship can combine to make. It has especially designed rooms to accommodate the following clinics: On the first floor, Obstetrics and Gynecology, Pediatrics, Genito-Urinary Diseases, Orthopedics, and Tuberculosis with the pharmacy and offices for clerks, medical superintendent and staff. On the second floor, General Surgery, Proctology, Nose, Throat and Ear, Dermatology and Syphilis, Internal Medicine, Psychiatry and Neurology, and Ophthalmology. In the basement are the X-Ray room, an orthopedic shop, a milk-distributing station and the manufacturing pharmacy. The third floor is occupied by the laboratories for chemical and microscopical diagnosis, bacteriology, and research work. A small laboratory for instant use is provided with each large clinic. The furniture and equipment is of the latest model.

In the evening a public meeting was held at which Chancellor Day formally presented the use of the building and equipment to the Syracuse Free Dispensary Association, which will continue the conduct of the Dispensary as a charity, while vesting in the faculty of the College of Medicine the organization and administration of the medical and surgical service. The address of the evening was made by Dr. Richard C. Cabot of the Harvard Medical School, who with his characteristic forcefulness impressed upon the audience the importance of dispensary work, and of the great advances in medical practice which would be gained by team work.

Early Campaign Against Flies. The Merchants' Assn. of New York City has issued a card emphasizing the importance of a fly campaign before these pests become especially troublesome. It is estimated that the progeny of one pair of flies—not to imply that flies are monogamic—would, in a season, if all lived, fill a space equal to the Woolworth Building. Moreover, flies are more easily captured before the weather becomes warm. The passing of the horse has removed thousands of manure boxes which formerly bred flies.

IOLA SANITARIUM. The Board of Supervisors of Monroe Co. recently appropriated \$75,000 for enlargement and maintenance of this splendid institution. At a special meeting March 20 the various medical societies of Rochester and Monroe Co. made formal application for a further appropriation of \$50,000.. This would represent a per capita tax of nearly half a dollar for the one purpose. It is worth it. But, we recently computed that, including public education, but not including the general maintenance of parks, public institutions, the health department and other enterprises which, in

theory at least, contribute to the welfare of taxpayers themselves, over a quarter of the total tax for Buffalo is for strictly benevolent and philanthropic purposes. This is probably typical of other cities. It seems to us an open question whether benevolence should be compulsory and, at least, it is only fair that the taxpayer should count the part of his tax paid for benevolence in estimating his further, voluntary contributions.

Deaths from Intra-Spinal Injection of Serum containing Neo-Salvarsan. Early in March, eight patients were treated at the County Hospital of Los Angeles, with fatal results. All were proved syphilitic by Wassermann and butyric acid tests, the diagnosis being confirmed by necropsy. On account of reports of failure of salvarsan intravenously, it was decided to inject intraspinaly, serum, drawn from the patients and used as a solvent, along with physiologic salt solution, for neo-salvarsan. Thorough asepsis was employed for the whole procedure. Death resulted within two or three days. It is suggested that oxidation had occurred in the drug.

Automobile Regulations for Buffalo. Contrary to expectation, the aldermen have exempted slowly moving vehicles from carrying lights, and have refused the privilege of standing on lower Main street. On most other down-town streets automobiles may stand an hour unattended.

Heroine-Cocaine Bill. The Frawley bill, awaiting the governor's signature, places heroine under the same restrictions as cocaine. The physician may not keep more than $1\frac{1}{8}$ ounces on hand. A book must be kept for entering purchases and, in it, the place in which the drug is stored, must be recorded.

Bichloride of Mercury Bill. Awaiting the governor's signature, the bill is effective June 1, 1914, and provides that the drug must not be sold or given away without a physician's prescription, and that, if dispensed in tablets, they must be colored green and of coffin shape. This shape has been patented and the patent deeded to the American Pharmaceutical Assn., to prevent monopoly.

Boylan Narcotic Bill. Awaiting the governor's signature, this applies especially to chloral and opium and derivatives. A physician's, veterinarian's or dentist's prescription is required, except for an exemption of domestic remedies containing only small amounts. The prescriber must give his full name, address, office hours and telephone, and the name, age and address of the patient, with date. The maximum content

of one prescription is 4 grains of morphine, two of heroine (note the inconsistency), six of codeine or 4 drachms of chloral, unless the dispenser verifies the prescription by consultation with the prescriber by telephone or otherwise. Hypodermic syringes and needles cannot be sold except on prescription, and the name and address of the purchaser must be recorded as now required in N. Y. City: Records of prescriptions must be kept for five years. The constant use of any habit-forming drug, except under the direction of a physician, renders the victims subject to commitment to a public or private licensed institution. Physicians addicted to the use of such drugs are liable to revocation of license, subject to restoration after cure.

Tuberculosis Mortality. There has been a decline from 262 per 100,000 population in 1896 to 166 in 1912, for New York City; from 132 in 1897 to 114 in 1912 for the rest of the state. In spite of the increase of population, there has been an almost regular decrease in the absolute number of deaths from 4158 in 1907 to 3826 in 1913, in the non-Metropolitan part of the state. It certainly seems that the movement for tuberculosis hospitals and the general education and enforcement of sanitary and hygienic principles is bearing good fruit. It should be borne in mind that this decrease is genuine; it is too marked and regular to be accidental, and there has been no increase in other diseases that might be regarded as removing a part of the population otherwise destined to die of tuberculosis. On the contrary, the mortality from other diseases has diminished.

Harrington Lectures. The University of Buffalo announces that Prof. Ludwig Pick of Berlin—whose work on “frosted” liver (Zuckergussleber) is especially noteworthy—will deliver this course at the Commencement season, the title being *Some Advances in Pathologic Anatomy*.

Race Distribution of Population of Buffalo. German 26%; English and Celtic 21%; Polish 15%; Italian 5%; Hebrew 1.6%; French 1.2%; total foreign 72%. These proportions undoubtedly apply to direct and one-generation foreignness. It is scarcely conceivable that any northern American city has 28% of colonial American stock.

Milk Prices. The Bordens Condensories announce the following schedule per hundredweight: April, \$1.30; May, \$1.15; June, \$1.05; July, \$1.15; August, \$1.25; September, \$1.40. An additional 10 cents per hundredweight will be paid for milk

testing 3.8% of butter fat. It will be noted that these prices correspond to about $2\frac{1}{2}$ cents a quart. They are prices at which it pays the farmers in grazing districts to produce milk. It certainly seems that, by condensation and preparation of milk into powder form, the cost to the ultimate consumer can be kept down.

Social Service for Paroled Insane. This has been inaugurated by the State Charities Aid Assn. The State Hospitals, with 32,600 inmates, have become overcrowded so that a law has been passed providing for the establishment of out-departments and special observation of paroled patients. It is believed that the suspicion felt regarding trivial manifestation of emotions and the misconstruction of the actions of paroled patients often produces relapse, and that kindly supervision will enable many to remain at large who would otherwise be forced back into hospitals. On the other hand, the parole of patients is not without danger. We recall the case of an old woman who had been returned to her family. She seemed to be quite sane, and was often trusted alone with children. On one occasion she told her family never to leave her with children again, as, several times, she had been on the point of killing them. Patients often have a realization of their need of restraint. An amusing story which may be true, is told illustrative of this. A man seemed to have recovered his sanity and was allowed to write a letter home, announcing his cure. After finishing the letter and directing the envelope, he licked a stamp and accidentally dropped it. By chance it fell on a cockroach. The patient, amazed, saw the stamp moving across the floor, tore up the letter and resigned himself to a longer stay in the asylum.

Death from Typhoid After Vaccination. The Board of Health of Queens County has officially declared the cause of death in the case of Clarence Panza, to be typhoid. Three weeks previously, he had received the final inoculation against typhoid. This is said to be the first death from typhoid occurring in the military experience of this country—the deceased being a member of the hospital corps of the 13th coast artillery district, N. G. N. Y.,—in one who had been inoculated. Although the lapse of time after even the final inoculation renders it improbable that the typhoid was due to this method, its failure is important.

Size of French Families. Of eleven million families, two were childless; 3 had one child each; $2\frac{1}{2}$ had 2; $1\frac{1}{2}$ had 3; 1 had 4; $\frac{1}{2}$ million had 5; $\frac{1}{2}$ million had 6 or more. There

were 34 families with 17 children, and 45 with 18 each. Owing to the inevitable high mortality in infancy and, indeed, up to adolescence, sterility, celibacy, etc., it has been estimated that the average couple must have four children in order to keep the population stationary. Probably, under present conditions, and especially allowing for the greater care of children in small families, an average of four children would result in a slight progressive increase.

The Buffalo Academy of Medicine has purchased a lot on Linwood avenue near North street, and expects to build a club-house in the comparatively near future.

Medical Judges. Senator J. L. Seeley has introduced a bill in the New York legislature, providing for a medical judge, at a salary of \$7,500, and an allowance of \$2,500 for traveling expenses, for each district of the Appellate Court. He is to attend every trial at which medical evidence is given as to sanity, and to furnish expert advice to court and jury. His instructions are to have equal weight with those of the trial judges.

Aviation Mortality. For the first three months of 1914, 36 aviators were killed. The total mortality to April 1, 1914 is 462.

Failure of Transfusion. The wife of Dr. W. W. Percy of Rochester died April 10, of acute pernicious anaemia, in spite of transfusion from her husband and from her brother, one quart of blood being taken from each.

Typhoid at Bridgeburg. Dr. Collins, Health Officer, has encountered four cases, in M. C. R. R. employees. This road has a special intake from Niagara River below the village intake.

WATER AS A CARBON REMOVER. While the motor is hot and operating fast, introduce 100 c.c. of water through the air valve. This breaks up the scales. Follow immediately with kerosene, through the primer or air intake of carburetor. Repeat about every thousand miles.

CERVICAL RIB. N. Gilbert, *Am. Jour. of Med. Sci.*, Sept., 1913, reports seven cases with general remarks. He considers the X-ray the only certain method of diagnosis.

SOCIETY MEETINGS

Brief reports and announcements of meetings of societies of Western New York, and those of general scope, are requested from Secretaries. Copy should be on hand the fifteenth of the month. Full transactions will be published at cost of composition.

Medical Society of the County of Erie.

The regular meeting of the Medical Society of the County of Erie was held at the Hotel Touraine April 20th, 1914.

This meeting was preceded by a subscription dinner to meet Dr. William Francis Campbell, president of the Medical Society of the State of New York. About 125 members attended. President Woodruff acted as toastmaster.

In the course of his remarks, he expressed the hope that the Western end of the State would be honored as is now the Eastern end. This caused a spontaneous outburst for Dr. Grover W. Wende, the society's candidate for president of the State Society.

Dr. Campbell was accompanied by Dr. James W. Flemming of Brooklyn, who in the course of his remarks, encouraged his audience by saying that Brooklyn was with Buffalo.

Dr. W. T. Shanahan, of Sonyea, president of the 7th District Branch, brought greetings and encouragement from his district. The president then called upon Secretary Gram to give a condensed account of the activities of the Medical Society of the County of Erie during the past century.

Other speakers were Dr. Edith R. Hatch, Dr. N. Victoria Chappell, Dr. Arthur G. Bennett and Dr. Thomas H. McKee, of Buffalo, and Dr. S. E. Page of East Bethany, N. Y., secretary of the Genesee County Medical Society.

At 8.30 o'clock, the regular meeting of the County Society was called to order by President John V. Woodruff.

The minutes of the previous meeting, held February 16th, 1914, were adopted without reading, having been published. (See March issue).

The secretary then read the minutes of the Council meetings of March 2nd and April 6th, 1914, both of which were adopted as read.

The following amendments to the by-laws, which had been offered at the previous meeting, and published with the notice of the meeting of April 20th, 1914, as required, were then read and adopted:

To amend Chapter 2, of the By-laws, by introducing a section to be known as section 13; which should read:

Section 13. **Retired members.**—Members in good standing who are seventy years of age or over may, by a majority vote

of the Society present and voting at any annual meeting, become retired members subject to the approval of the State Society as defined in its by-laws, Chapter 1, section 2. Applicants for retired membership must be approved and endorsed by the council and the application must be sent to the secretary of the State Society in time for presentation at the first meeting of the house of delegates. Retired members shall be entitled to the privilege of attending and addressing the meetings of the Society, but shall not be accorded other rights or privileges of membership, nor be subject to assessments.

Amend Chapter 7, section 1 by introducing a new line to read—"4. Economics" after the line "3. Membership."

Amend Chapter 7 by the introduction of a new section to be known as section 6 which shall read: **Committee on Economics.**—The Committee on Economics shall consist of three members including the chairman. It shall be the duty of this committee to investigate and to report to the Council with recommendations all questions of an economic nature not properly the duty of other committees, or those referred to it by the Society such as political, financial and educational relations with the government, with other professions, with the laity and with members of the medical profession and of the Society. It shall have power to appoint temporary subcommittees approved by the Council. It shall co-operate with like committees of the State and National Societies. Two members shall constitute a quorum.

Dr. Albert T. Lytle then presented a comprehensive paper on "Contract Practise, an Economic Study."

Dr. William Francis Campbell was then introduced by the president, and entertained the Society with a scholarly address embodying his observations made during the past year in his visits to the various county and district societies in an official capacity .

Dr. Lytle's paper was then thoroughly discussed and various views were presented.

A reception and buffet lunch followed the meeting.

FRANKLIN C. GRAM, M. D.,
Secretary.

The Buffalo Academy of Medicine has held the following meetings:

Stated Meeting of Academy, March 24 ,at which a report was made by the special committee to investigate building sites. The Section on Pathology furnished the scientific program: Some Tropical Granulomata, Dr. Richard P. Strong of Harvard University.

Section on Surgery, March 31: Sclero-corneal Trephining

in the Operative Treatment of Glaucoma, according to the Method of Col. R. H. Elliott, Dr. Lee Masten Francis of Buffalo.

Section on Medicine, April 7: "We have left undone those things which we ought to have done and we have done those things which we ought not to have done." Dr. T. H. McKee of Buffalo; Clinical Experiences with Phenol Therapy, Dr. George R. Critchlow of Buffalo.

Section of Obstetrics and Gynecology, April 14: Program—Five-minute Papers from Practical Experience:

Drainage in Puerperal FeverM. Hartwig, M. D.
The Misuse of ForcepsJohn V. Woodruff, M. D.
Method of Performing Episeotomy Frank H. Ransom, Jr. M.D.
Occipit PosteriorWm. T. Getman, M.D.
McDonald's Method of Examining for Probable

Time of LaborGeo. R. Critchlow, M. D.
The Fisher Treatment in Eclampsia ..Thomas J. Walsh, M. D.
The Short CordN. Kavinoky, M. D.
Position of Patient Following Labor ..Irving W. Potter, M. D.
Temperature of the New-bornEdith R. Hatch, M. D.
Pituitrin, When Not to Use it in Labor..W. W. Britt, M. D.
Estimation of Cervical Dilation by

RectumHerman K. DeGroat, M. D.
All of Buffalo.

Section on Pathology, April 21: Experimental Pneumonia, Dr. M. C. Winternitz of Johns Hopkins.

Rochester Academy of Medicine. Section IV.—Public Health, including Hygiene, Climatology, Physiology, Pathology, Bacteriology, and Forensic Medicine. The regular meeting of this section was held at the Academy rooms, 355 East Avenue, April 8. The Significance of Albumin in the Urine—1. The chemical tests for Albumin, Dr. Charles R. Witherpoon. 2. The significance of Albuminuria in the acute infectious diseases, Dr. John R. Williams. 3. The significance of Albuminuria in chronic diseases: (a) Respiratory, Dr. E. G. Whipple; (b) Circulatory, Dr. N. W. Soble; (c) Genito-Urinary, Dr. W. F. Plumley; (d) Gastro-Intestinal, Dr. W. V. Ewers; (e) Nervous, Dr. E. L. Hanes. 4. The significance of Albuminuria to the Surgeon, Dr. C. W. Hennington. 5. The significance of Albuminuria to the Obstetrician, Dr. W. M. Brown. 6. The significance of Albuminuria to the Ophthalmologist, Dr. A. C. Snell. We expect to publish these papers next month.

Section III.—Obstetrics, Gynecology, and Pediatrics, met March 11. The Infants Summer Hospital. Some Pediatric Cases, Dr. Joseph Roby.

The Monroe County Medical Society holds its annual all-day meeting Tuesday, May 19. The program consists of a clinic by the local members in the various hospitals, then a luncheon, followed by a number of formal papers and addresses during the afternoon. The officers are Dr. A. C. Snell, president, and Dr. C. W. Hennington, secretary.

The Hospital Medical Society of Rochester held a meeting on Thursday, April 23, at which Dr. F. W. Seymour read upon New Growths of the Mediastinum, with report of two cases. The annual Spring meeting occurs on May 7.

The regular meeting of the **Rochester Pathological Society** was held at the Rochester Whist Club, 40 N. Fitzhugh Street, Thursday evening, April 16, 1914. Dr. H. L. Prince gave a paper on Diagnosis and Treatment of Congenital Dislocation of the Hip. W. Douglas Ward, president, Charles L. Hinchey, secretary, 270 North Street.

Elmira Academy of Medicine met April 1st. Modern Ophthalmology and Oto-Laryngology, G. M. Case, M. D. Eugenics, F. L. Christian, M. D.

Under the auspices of the **New York Branch of the American Pharmaceutical Association** a joint meeting of physicians and pharmacists will be held on the evening of May 18th at 8 o'clock, at the College of Pharmacy Building, 115 West 68th Street, New York City.

The subject will be "Pharmacopoeial Revision." Professor Remington of Philadelphia, Chairman of the Committee of Revision, will lead the discussion.

It is earnestly hoped that the medical profession will be largely represented. The discussion will certainly prove of vital interest to all physicians and pharmacists.

The 108th Annual Meeting of the **Medical Society of the State of New York** was held at the Hotel Astor, New York, April 28-30. The registration was nearly 800, with no effort at padding by registration of local members not actually in attendance. The next meeting will be held in Buffalo under the presidency of Dr. Grover W. Wende. A more extensive notice is impossible on account of our date of printing and is undesirable because it would be neither courteous nor an indication of loyalty to the State Society to anticipate or to duplicate the announcement and publication of papers in the Journal of the organization.

PERSONAL.

Announcement of removal, travel, and other matters of interest are requested. Please report errors in the listing of any physician in the State and other directories, that we may co-operate with the State Society in securing a correct list.

Dr. M. Axford of Buffalo has moved to 351 Lafayette avenue.

The office of Dr. Irving R. Johnson of Buffalo was robbed April 1.

Dr. Burt C. Johnson of Buffalo returned from a trip to Nassau in April.

Dr. Z. J. Lusk of Warsaw was in Cleveland and Pittsburg late in April.

Dr. F. W. Scott of Medina has recovered from a severe attack of amygdalitis.

Dr. F. S. Burlingham of Friendship has been elected Chief of the Fire Department.

Dr. James A. Gibson of Buffalo has moved to the Melton Manor on Chapin Parkway.

Dr. E. A. Sharp of Buffalo announces the removal of his office to 481 Franklin Street.

Dr. Herman E. Hayd of Buffalo returned about the middle of April from a ten months' trip to the Orient.

Dr. George P. Michel of Buffalo had his automobile damaged by a collision with a street car April 9, escaping himself with slight injuries.

Dr. E. C. Register, for 25 years editor of the Charlotte Medical Journal, has been elected president of the Tri-State Medical Society of Virginia and the Carolinas.

Dr. S. J. Brown of Mt. Morris has been elected Health Officer of the town, vice Dr. G. C. Fiske, who has moved to Buffalo. He also succeeds the latter as surgeon to the Lackawanna R. R.

Dr. F. C. Goldsborough of Buffalo has moved to the residence which he recently purchased, 515 Franklin Street.

Dr. Regina Flood Keyes of Buffalo announces the removal of her residence to the Buckingham Hotel, and of her office to the Professional Building, Allen Street and Irving Place.

The following physicians attended the annual banquet of the University of Rochester Alumni, Buffalo Association, April 4: F. Parke Lewis, Irving M. Snow, Wm. H. Thornton, H. K. DeGroat, Lesser Kaufmann, E. A. Rhodes, A. L. Benedict, of Buffalo; John W. Le Seuer of Batavia.

OBITUARY

Readers are requested to report promptly the death of all physicians in Western New York, or former residents of this region, or graduates of any medical school in Western New York, and to notify the families of the deceased of our desire to publish adequate obituary notices.

Dr. Egbert Le Fevre, N. Y. Medical College, 1884, died suddenly of anginose scarlet fever, March 30, aged 56. He was the Dean of the Bellevue Hospital Medical College, author of a well known work on Physical Diagnosis, and a man esteemed both as a physician and for his personal qualities.

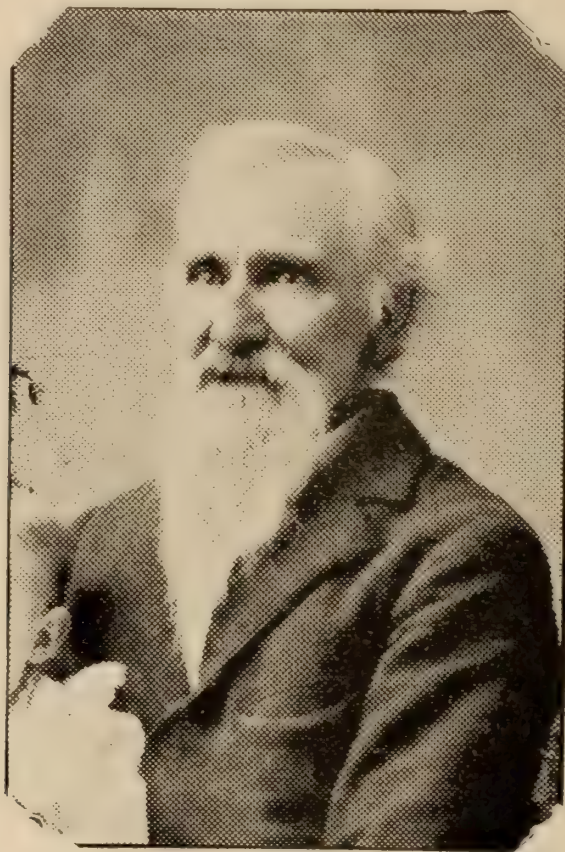
Dr. Walter Scott Hicks, Buffalo 1851, died at his home in Bristol March 16, aged 86.

Dr. Rush P. Brown, N. Y. University 1873, was found dead in bed April 9, at his home in Addison. He was born in Springfield, Pa., 1847. After his graduation he spent his life in Addison.

Dr. Joseph D. Bryant, Bellevue 1868, of New York, died April 7, aged nearly 69. He was born at East Troy, Wis., March 12, 1845. Following his graduation, he served as interne at Bellevue for two years, then became an assistant to the chair of anatomy and was promoted, step by step till, in 1898, at the merging of the University and Bellevue Hospital Medical Colleges he became full Professor of Surgery. In 1873 he was made a surgeon in the 71st Regiment, N. G. N. Y. In 1882, as Brigadier-General and Surgeon General of the State, he reorganized the medical staff of the National Guard, from which he resigned in 1895. As an author, his most noted achievements are his Operative Surgery and the American System of Surgery, in which he co-operated with Buck. Of

his numerous affiliations with professional organizations, we need note only that he was president of the N. Y. State Medical Association in 1898, and of the United Medical Society of the State of N. Y. in 1906. His death was due to diabetes of long standing, in spite of which he carried on a large practice and maintained an interest in professional affairs. Like most men of prominence, he was affable, kindly in nature, and beloved by patients and professional colleagues.

Dr. Jesse P. Bixby, Castleton Medical College (extinct 1861) 1852, died at his home in Rushford, April 3. He was born in Mt. Holley, Vt., Dec. 27, 1821, and after attending the Black Creek Academy, studied medicine at the Woodstock Medical



College before going to the Castleton College. His entire professional life was spent at Rushford, except that he practiced at Farmersville Station from 1902 to 1904. He was a prominent Mason.

Dr. Vincent G. Hamill, Buffalo, 1884, died recently of heart disease in New York City. He was the fourth physician in his family line.

Dr. John B. Hoyer, Bellevue 1881, died at his home in Middleport, April 3, 1914.

CYSTS OF BONE**A. F. Tyler, M. D., Omaha, Neb.**

Many formerly held that cysts of bone were part of a degenerative process taking place in osteomata, chondromata and sarcomata osteomalacia and osteitis deformans. Indeed in the American Text-book of Pathology of a few years ago the statement is made that cysts of bone seldom occur from any other cause. The ability to find these cysts in the living subject by means of the X-ray has shown that they are much more



Fig I. Antero-posterior view of femur showing multiple cysts involving the bone near the trochanters (c), fracture (F).

frequent than was formerly supposed and that cysts of bone do exist in no way connected with any other kind of bone pathology. Simple cysts are found in the long bones quite often. Cysts of the lower jaw, where they form about an unerupted tooth, or about the root of an old useless tooth, are most frequent of all. Those cases of multiple cysts in bone are



Fig. II. Lateral view of femur showing multiple cysts (c), fracture (F).

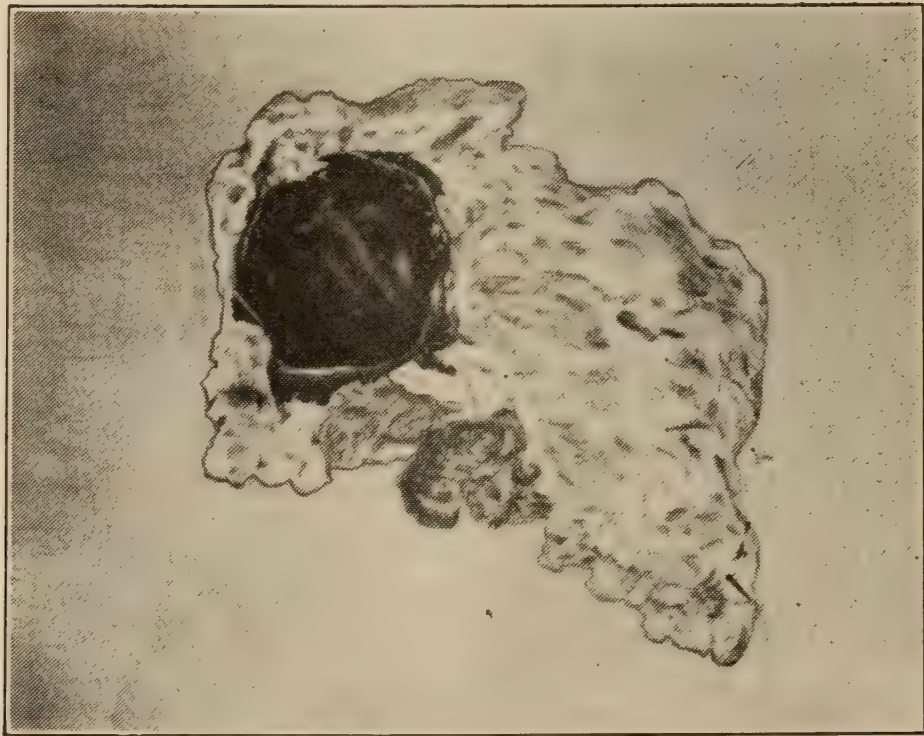


Fig. III. Drawing of section of bone removed from the femur during resection for polycystic condition. Note the smooth lining membrane. This cyst was filled with albuminoid material resembling white of egg.

thought to be part of a chronic inflammatory process where the bone softens in a manner similar to osteomalacia.

It is in this latter class that spontaneous fractures occur. The portion of the bone involved becomes porous and very fragile being filled with many small cysts. These cyst cavities have a distinct lining membrane or sac (Fig. III) and are filled with a viscid substance similar to the white of egg.

The outlook for recovery in simple cysts is good under proper treatment. In the multiple type, the condition gradually extends unless the bone is resected. Simple curretting the cysts will not stop the process but resection with bone

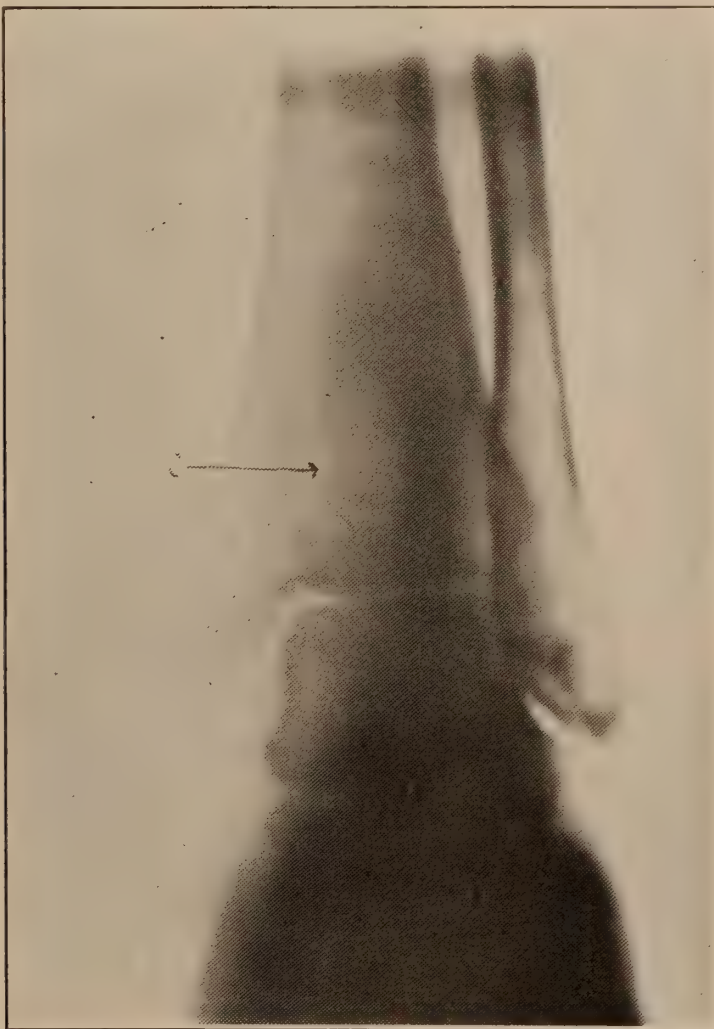


Fig. IV. Antero-posterior view of lower end of tibia showing single large cyst.

graft to fill the gap results in good function. The simple type can be curetted thoroughly so as to destroy the lining membrane, then the cavity is painted with pure carbolic acid followed by alcohol and is packed with iodoform gauze. At the end of forty-eight hours the packing is removed and the cavity filled with Moerhof's bone wax:

Iodoform	60
Spermaceti	40
Oil of sesame.....	40

Case I.—W. M., a school boy of 12 was playing ball when his “left foot caught behind the right” and he could not get up. A physician was called and treated the fracture of the left femur just below the trochanter. Recovery was unevent-



Fig. V. Lateral view of lower end of tibia showing single large cyst (c) almost ready to rupture through anterior wall of tibia.

ful but four months later the boy turned quickly in the house and fell to the floor. The same physician was called and found a fracture of the same femur at the same place as before. He brought the boy to St. Joseph’s Hospital where a radiograph revealed a polycystic condition of the left femur involving the bone from the surgical neck to well below the trochanter, a fracture was also present extending transversely across the shaft just below the trochanters (see Fig. 1). A diagnosis of osteitis fibrosa cyseica was made and operation

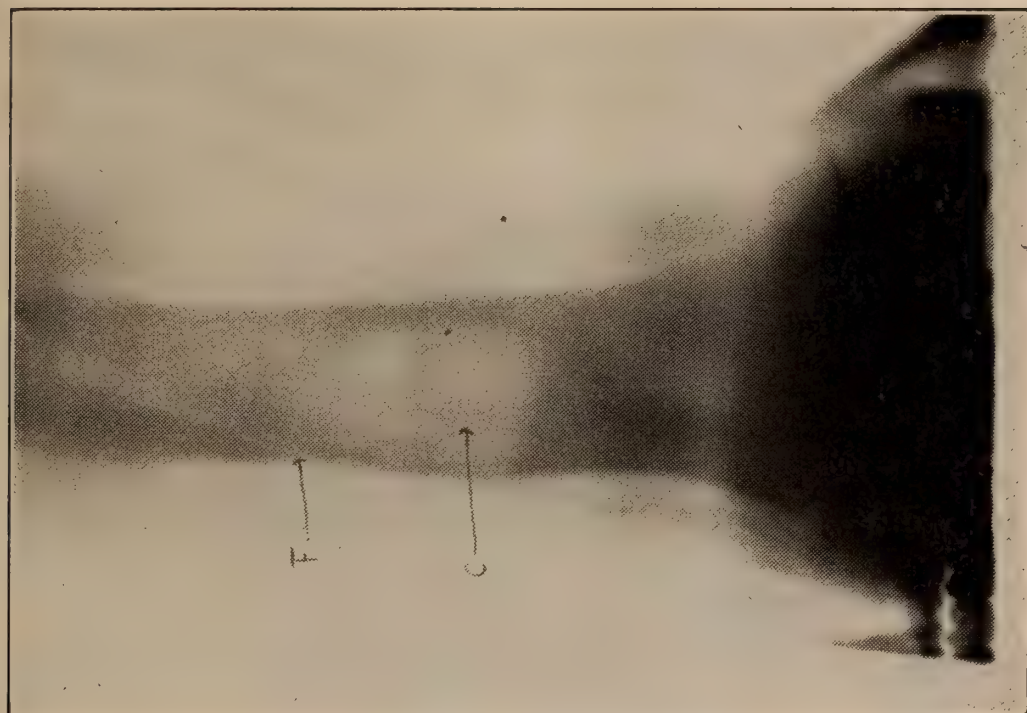


Fig. VI. Antero-posterior view of the lower part of the femur showing single large cyst (c) below oblique fracture (F).

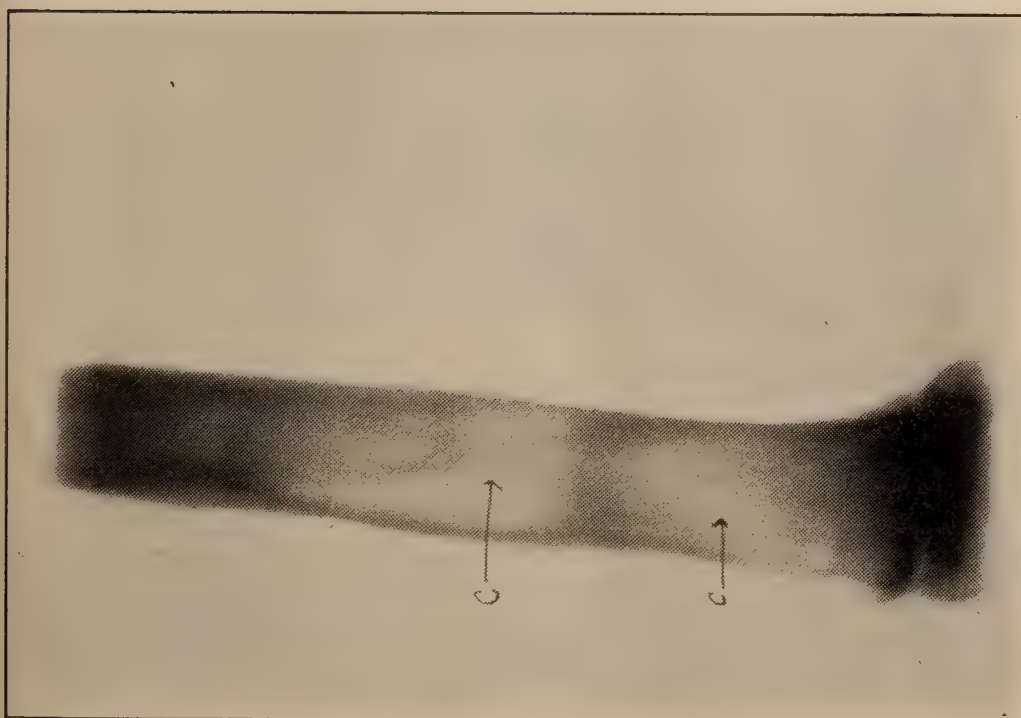


Fig. VII. Lateral view of lower part of femur showing two large cysts (c).

recommended. The cysts were curetted, the bone was resected and a graft from the crest of the tibia was inserted from the two fragments extending into the medulla of each fragment. The patient was able to leave the hospital in four months (Figs. I, II and III).

Case II.—Mrs. E. B., 35, a housewife and mother doing her own work came complaining that at times her left ankle became painful and swollen. A few days rest restored it to normal function. Radiographs revealed a cyst cavity in the lower end of the tibia within one inch of the articular surface and

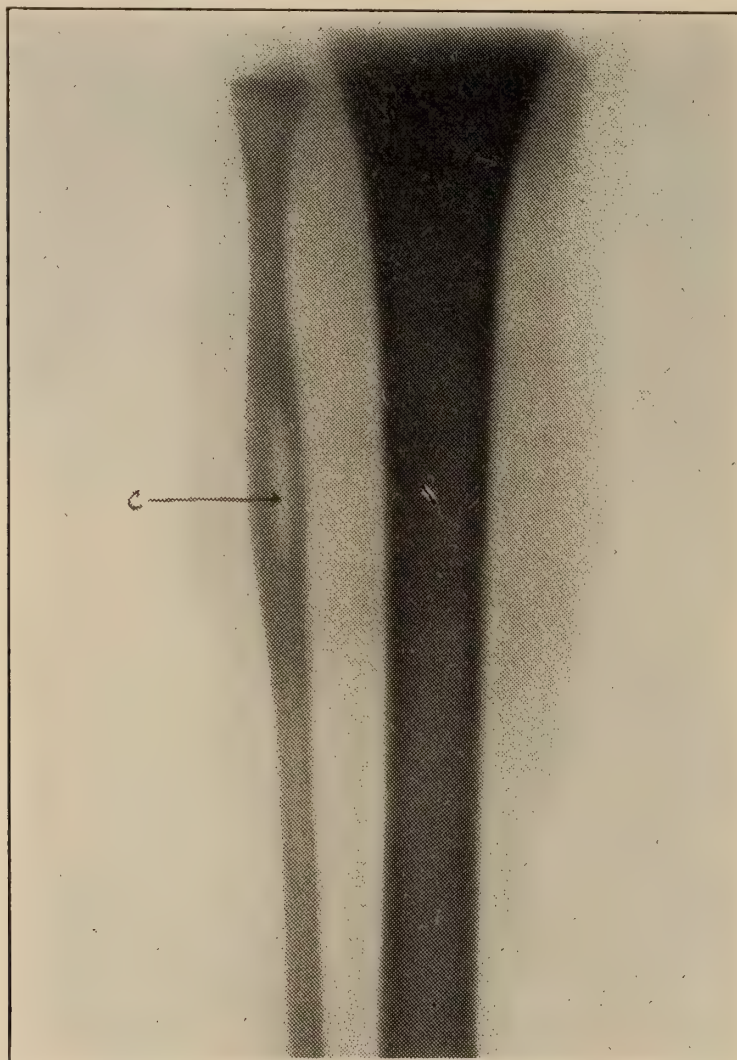


Fig. VIII. Antero-posterior view of upper part of leg showing cyst (c) forming in fibula, taken seven months after fracture of femur in the same leg.

with only a shell of bone covering the anterior surface. Incision and curettement removed a viscid substance from the cavity leaving healthy bone. The cavity was packed with iodoform gauze for forty-eight hours. When this was removed the cavity was filled with Moerhof's bone wax. Recovery was complete and the patient has full function today (Figs. IV and V).

Case III.—F. R., a school boy of 10 rolled off his sled last February fracturing the right femur at the junction of the middle and lower third. Radiographs made to show the apposition revealed a cyst lying in the shaft of the bone just below the site of fracture. Radiographs were then made of the entire body but this solitary cyst was the only one present. The fracture united so that later radiographs failed to show its presence. The cyst remained unoperated, but the boy has per-

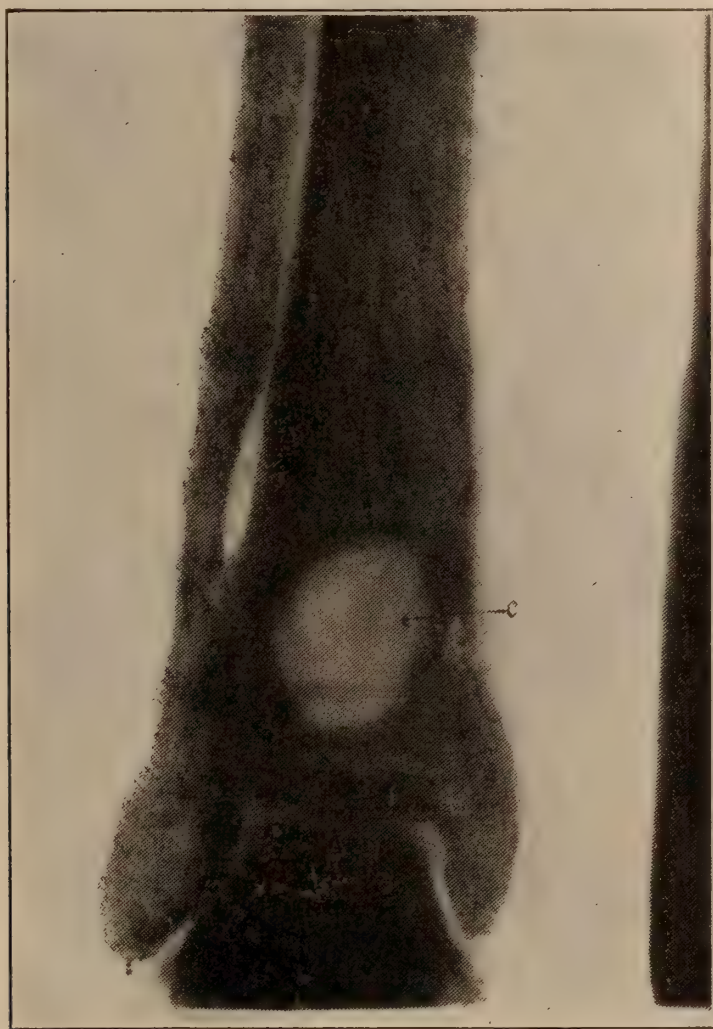


Fig. IX. (Plate retouched.) Antero-posterior view of lower leg showing large cyst in tibia and erosion of fibula from pressure of another cyst.

fect function. Radiographs made September 11, 1913, reveal a second cyst forming in the femur below the first and a third in the fibula of the same leg (Figs. VI, VII and VIII).

Case V.—C. H., a farmer of 57 came complaining of a painful swelling near the ankle on the left leg. Examination revealed a solid swelling near the ankle of the left leg. Radiographs showed a large cyst cavity in the tibia and an erosion of the fibula at the same level. The posterior tibial artery was calcareous, showing plainly in the radiograph, and was pushed

backward at the level of the cyst. A diagnosis was made of a large cyst which had ruptured through the bone into the soft tissues and by direct pressure had displaced the artery. Operation showed this to be the condition, the cavity being more than filled by a jelly-like substance. Microscopical ex-



Fig. X. Drawing of foot after amputation for malignant degeneration of cyst in the lower part of the tibia. Note where one cyst has been curetted away. Note another protruding backward from the tibia, pressing against the fibula (cut away). Compare the erosion of the fibula in Fig. IX.

amination of the curettement from the walls of the cavity showed a small round cell infiltration and on the strength of this the leg was amputated, the thickening being considered as having undergone carcinomatous degeneration (see Figs. IX and X).

WASSERMANN REACTION AMONG INSANE NEGROES. R. R. Ivey of Tuscaloosa, Ala., *N. Y. Med. Rec.*, Oct. 18, 1913, obtained 102 positive, 247 negative reactions in females, 90 positive and 267 negative reactions in males. A considerable variety of mental conditions is included, but it is significant that there were no negative reactions in the 17 cases of general paresis.

PROTECTIVE FERMENTS. I. Walker Hall, M.D., Bristol, *Bristol Med. Chir. Jour.*, December, 1913. The tissues are protected from the entry of heterologous proteins by action of the digestive apparatus. The food enters the body proper, except during gastro-intestinal catarrh or ulceration, in a form suitable for the capacities of the various types of cellular metabolism; namely, as amino-acids, or altered proteins, etc. The further building up, or breaking down, of these substances depends upon the characters of individual cells. The means employed for this purpose are strictly specific. For instance, it has just been shown that the blood serum of a dog will hydrolyse muscle protein derivatives (peptone), but not the proteins, of dog's muscle, or of cat's muscle, and *vice versa*. There are, however, group reactions, for fox serum hydrolyses dog's muscle peptone, and dog's serum hydrolyses fox muscle peptone.

When heterologous proteins or other food substances reach the tissue without being previously broken down or changed into homologous proteins, they are regarded apparently as of the nature of foreign bodies, and methods are evolved for their removal. The most reasonable way by which they can be prepared for removal is along the lines of ordinary alimentary digestion. The substances which effect this "protective" type of digestion do not occur normally in the tissue cells themselves. There is a sufficiency of substances for the cleavage of amino-acids, etc., that is to say, peptolytic ferments, but neither tryptic nor peptic enzymes. What is to be done? The tissues have to rise to the emergency, and produce the means for dealing with the foreign body in question. Some days elapse before the necessary capacity for bringing this about is attained. A similar delay occurs, it will be remembered, in connection with the appearance of such antibodies as agglutinins and lysins.

The presence of these new powers is manifested by a change in the characters of the blood serum, demonstrated in several ways. In one, purified albumins are prepared from the foreign proteins: serum containing specific ferments is then allowed to act upon the pure albumin, and the resultant products are separated by dialysis and subsequently identified. In another method, peptones derived from the heterologous protein are examined in a special form of polariscope, and the deviations read from time to time. Care is needed to avoid fallacies.

One of the practical applications of this experimental work, carried out in Berlin and Halle at the instigation of Abderhalden, is a test designed to assist in the diagnosis of pregnancy during the first months. Schmorl has shown that the placenta allows the transmission of chorionic cells, or placental albumin, into the

maternal blood stream. The albumin is neither broken down into amino-acids nor re-constituted into homologous albumin, so that it circulates as a foreign albumin in the blood stream, and acts as a stimulus to the formation of "protective" ferments. These ferments are produced in due course, and may be demonstrated in the blood stream as early as at the end of the first month. It should be borne in mind, however, that these ferments are anti-placental and not anti-fœtal. The test tells, therefore, whether placenta is present or not. The results accumulated from sources all the world over, including a fair number from Bristol during 1912 and 1913, go to show that about ninety-five per cent. of pregnant and one per cent. of non-pregnant women yield serum giving a positive reaction. Carcinoma and fever seem to interfere with the sharpness of the reaction. One case is reported in which blood serum obtained from a male gave a positive reaction: whether this was a case of suspected chorio-epithelioma is not stated. The reaction has been found negative in two cases of placental polypi and retained placental tissue. The position appears to be as follows. A serum test for pregnancy is on its trial, its technique will most probably be improved as time goes on. At present it may be regarded as a useful adjuvant to clinical signs, and may afford aid also in the differentiation of pregnancy from tumours of the uterus and adnexa. It may with advantage be associated with an estimation of the urinary creatine, which shows an increase very early in pregnancy. It may help to distinguish between slight and severe cases of eclampsia, and may even afford some indication of its onset. Apart from the difficulties of the technical procedures, there are some fallacies connected with the collection of the blood. The serum should be free from hæmoglobin if the ultimate reading is to be definite. It must, therefore, be collected very gently and not disturbed during the process of coagulation. A stay of four hours in an ice chest is preferable. 5 c.c. of blood are necessary, and the upper layers of the serum are used after repeated centrifugalisation. The test must be carried out before the blood has become old, for if any decomposition has taken place, and ammonia has been formed, the results are of little value.

Another application relates to the presence of specific "protective" ferments in the blood serum in certain diseases. For instance, Fausser states that in *demetia proecox* the patient's serum is able to break down testicular and brain tissue. In syphilis and para-syphilis a similar action upon coagulated nerve proteins is present. In thyroid lesions there is a cleavage of thyroid albumin, although this is less marked.

In thirteen cases of persistent thymus the blood serum formed

peptones from albumins prepared from thymus tissue, and thus indicated the presence of status lymphaticus and lymphatism, confirmed in some of the instances by operation or autopsy (Bauer). From the control standpoint, Lampe has shown that norma serum does not alter proteins prepared from thyroid or thymus, or liver, or pancreatic, or supra-renal, or ovarian, or testicular, or muscular tissue.

If albumins are prepared from atrophic muscle fibres and serum obtained from patients suffering from muscular atrophy in cases of cornual changes, or disseminated sclerosis or of tabes, is allowed to act upon them, peptones are formed from the albumins.

In pneumonia it has been found that the blood contains ferments which act specifically upon albumins prepared from the pneumococcus. The feature is most evident at the period of crisis, and may have something to do with its onset.

A considerable amount of work is now being carried out in order to determine whether the blood serum of carcinomatous individuals possesses protective ferments against cancer cells; whether the presence of lymphadenoma may be similarly diagnosed and so on. It is quite possible that the inhibitory effects of carcinomatous extracts upon the rate of division of paramecium may be due to substances of an allied nature.

HOT AIR CURRENTS. Henry (sic) Rozies of Ste-Maxime-sur-Mer, *Le Progres Med.*, Nov. 27, 1913, explains that hot air treatment by the confined air bath is limited mainly to osteo-articular affections, the hot air blast may be used on ulcers, atonic wounds, burns, in neuralgias and neurities, even against the lesion of diphtheria. Analgesic, antiseptic, alterative, cicatrisant and other actions are obtained by temperatures of 100-200 (C.), while temperatures of 200-300 may be used as caustics. The air may be heated by hand-compressed bulbs, so as to pass it through the flame of a Bunsen burner or the compressed air tanks of the Compagnie Poop may be used in the same way. Bellows worked by the foot may also be employed. Various electric apparatuses are mentioned, in which the current operates a fan and also a resistance coil to warm the air.

SIALORRHOEA AND PTYALOMANIA. Maurice Loeper of Paris, *Le Progres Med.*, Nov. 27, 1913, defines the latter as a voluntary if not conscious tic, occurring in the nervous and also in certain gastropaths, consisting in a spitting habit without excess of saliva. Sialorrhœa, though not definitely limited to certain diseases, is especially noted in ulcerative lesions and particularly those of

the cardia and the lesser curvature. The quantity of saliva is often difficult to estimate on account of being swallowed, but it may amount to 700, or even 1,500 c.c. a day. The specific gravity (1,004) and mineral constituents do not differ materially from the normal.

BOTULISM. Ch. Esmein, Paris, *Le Prog. Med.*, November 8, 1913. The term was coined about 1800 by physicians of southern Germany, to apply to poisoning by sausage and pudding (a meat pudding, not the ordinary American pudding) whence its name, by translation into Greek. The term has been used both in the narrow and in the very broad sense of any digestive disturbance due to a food but was first placed on a scientific basis by Van Ermengen, in an epidemic at Elezelles, Belgium, in 1895, when the anaerobic bacillus botulismi was isolated, the condition reproduced in animals, and the definition reduced to a specific infection. The condition is rare, mainly limited to southern Germany, the vicinity of Würtemberg, Bavaria and Baden but occasionally seen in Belgium, France and England. It occurs usually in small epidemics, involving the inhabitants of a house, garrison, boarding house, etc. (Note: The remainder of the article deals with facts theoretically well known to the profession but the preceeding well shows that the diagnosis should not be made by symptoms alone and that the term should be applied with some skepticism, and only after bacteriologic demonstration of the specific bacillus.)

FAMILIAL DIABETES. F. A. Long of Madison, Neb., reports in the *Western Med. Rev.*, January, 1914, the following instances: 1, two brothers; 2, father and two sons; 3, husband and wife and two daughters; 4, the sister of the man in 3; her two daughters, one son and a granddaughter. All were farmers, none of neurotic or rheumatic type.

CHRONIC CYSTIC MASTITIS. E. S. Judd, of Rochester, Minn., *Jour. Mich. State Med. So.*, January, 1914, reports that up to 1913, 929 cases of breast tumor were operated on at the Mayo Clinic, 711 being definitely cancerous but most of them showing evidence of chronic cystic mastitis in varying degree. 218 were definitely classified as chronic cystic mastitis. 11 of these occurred in males, 5 in each breast and 1 in both breasts. Of the 207 females, 140 were parous, 45 nulliparous, 3 had miscarriages (sic) 22 not mentioned. Seventy-nine per cent. of the strictly cancerous tumors occurred in the "cancer age," 30-60, while 85.3% of the non-malignant cases occurred in this period.

SPLENECTOMY FOR SPLENOMEGALY. J. A. Nixon of Bristol reports the removal of simple hypertrophie spleen from a girl aged 14, with recovery but recently, (18 months after operation) suspicion of pulmonary tuberculosis. He reproduces Johnston's tabulation, up to 1908 from *Annals of Surg.*

E. Hey Groves (*ibid.*) advocates splenectomy early in Banti's disease and reports a successful case.

Lesion or Disease.	Cases	Recov- ered	Died
Idiopathic hypertrophy	74	53	21
Idiopathic hypertrophy, ectopic spleen	64	50	6
Idiopathic hypertrophy, twisted pedicle ...	27	19	8
Malarial hypertrophy	149	111	38
Malarial hypertrophy, ectopic spleen	40	39	1
Malarial hypertrophy, twisted pedicle	12	10	2
Splenic anæmia	61	49	12
Cysts, hydatid	23	19	4
Cysts, non-parasitic	19	19	0
Leukæmia	49	6	43
Tuberculosis	10	8	2
Sarcoma	12	9	3
Abcess	9	8	1
Miscellaneous	13	11	2
Wounds and injuries	150	99	51
Total	708	514	194
Per cent		72.6	27.4

LEFT SIDED APPENDIX WITHOUT VISCERAL TRANPOSITION. Chas. B. G. de Nancrede, of Ann Arbor, *Jour Mich. State Med. So.*, January, 1914, reports a case, shows several illustrations from museum specimens and summarizes the explanation as follows:

About the close of the tenth week of gestation the somewhat left sided practically straight intestinal tube has assumed an U-form and the cecal bud and the rudiments of the appendix are recognizable, and the cecum occupies approximately the umbilical region. About the close of the fourth month the cecum reaches its usual prenatal position beneath the right lobe of the liver by a process of so-called rotation, passing in front of and across the superior mesenteric artery and duodenum, subsequently to descend into the right iliac fossa, this descent occurring, according to some observers about the sixth month of intrauterine life; according to others this may not occur normally until after birth.

While the few photographs presented by no means exhaust the possible abnormalities of location and course of the colon, they should prove adequate for the present purposes. Numerous still more complicated and puzzling possibilities can obtain, induced by the traction of inflammatory adhesions alone, or from the effect of these, superadded to congenital variations; with such we cannot at present concern ourselves.

Robin (*Traitment de la Tuberculose*) holds that an adequate supply of mineral substances is an indispensable factor in the successful treatment of tuberculosis, and suggests the following formula:

Bone, freshly powdered.....	1.0 gm.
Precipitated chalk	0.4 gm.
Magnesium carbonate	0.1 gm.
Milk sugar	1.0 gm.
Sodium bicarbonate	0.5 gm.

This quantity may be given twice daily after meals.

SLEEP EXPERIMENTS. Claparede, Pieron and Legendre, *La Rif. Med.*, March 22, 1913, have found that dogs, kept from sleeping for ten days, die, but that if allowed to sleep a few days earlier, they recover. Cephalorhachidian fluid, injected from a fatigued dog into a normal animal, quickly produces sleep. This proves, what has long been known, that sleep is due to the accumulation of toxic products. Whether it would be justifiable to adopt the therapeutic hint is doubtful. On the whole, experiments of this sort rather strengthen the opponents of animal experimentation.

ANAEMIA: HYPODERMIC MEDICATION, M. K. Robbie in *Merck's Archives*:

Iron citrate, 5/6 gr., 0.05 gm.
 Sodium arsenate, 1/6 gr., 0.01 gm.
 Strychnine sulphate, 1/120 gr., 0.0005 gm.
 Sterile distilled water, a sufficiency.

This quantity is put up in a sterile ampoule and given once or twice daily as the case requires. The site of injection is the thigh.

LAPAROTHORASCOPE. Rosenthal, *Bull. Gen. de Ther.*, May 30, 1913, discusses the method devised by Jacobeus of Stockholm. An opening is made with a large trochar and a cystoscope introduced. Various lesions can be seen.

AMBARD'S CONSTANT. George Hermyle Bril, *Le Jour. de Med. et de Chir.*, de Montreal, November, 1913. Urea is no longer regarded as a product of bodily metabolism but as corresponding to the N of the diet, so that, indeed, the diet can be approximately checked by the urea estimations. Amard's constants represent the relation of the urine to the blood, in urea, at a given period. The full method is quite complicated so that we attempt only to abstract the principal points. By catheter, the urine is collected for a period of exactly ten minutes and its urea is compared with that of the blood, drawn immediately afterward. There is some difference of opinion as to whether the blood should be drawn from a vein or by wet cupping. The author considers the latter method more representative of the average blood, the urea content of the arterial blood being approximately identical whereas the venous blood differs in urea content and that of extractives in different parts and under different conditions, as of exercise.

Ambard's Constant is the per mille of urea in the blood divided by the square root of the following product: the total 24-hour output, or rather the estimated 24-hour output at the rate observed in the experiment, times 70 kilograms divided by the actual weight of the patient, times $1/5$ the square root of the per mille content of the urine in urea.

PROLONGATION OF PREGNANCY BY REST IN THE LAST MONTH, Grenier, *Jour. de Med. de Bordeaux*, October 28, 1913 reports an increase of average from 265 to 286 days.

ESTIMATION OF UREA ALONE IN URINE. Lematter, *Dresse Med.*, August 16, 1913. (Note: Pure uric acid and other nitrogenous constituents of the urine but not, we believe, proteids and nucleo-proteids, yield nitrogen on treatment with sodium hypobromite. Hence, so-called urea determinations in the urine are really approximate estimates of total non-proteid nitrogen. It would, perhaps, be better for clinical estimations to have the urea tubes graduated so as to show the amount of N by weight instead of the urea, 28/60 of which is nitrogen.—Ed.) 30 c.c. of urine and 50 c.c. of a fresh 30% phospho-tungstic acid solution are introduced into a 100 c.c. flask. Agitate and let stand 10 minutes; add 4 grammes of Magnesium chlorid. Add water to the 100 c.c. mark. Let stand till the precipitate has completely settled. Filter only the decantate as the precipitate will pass through a filter. Neutralize 10 c.c. (corresponding to 3 c.c. of urine) with normal sodium hydroxid, to a permanent pink tinge with phenolphthalein. Then estimate the urea in the usual way.

PERSISTENT PARALYSIS OF THE LEG. Ingenious treatment by a peasant, Chambon, *Jour de Med. de Bordeaux*, November 30, 1913. The patient, after being incapacitated for six months after sciatica, the leg being atrophied and the paralysis interfering with the elevation of the foot in walking, tied one end of a cord to his coat button and looped the other end about his instep. By raising the foot by pulling on the cord, so as to raise the foot at each step, and using a cane in the opposite hand, he managed to walk fairly well.

SUGAR DIET IN INTOLERANT ULCER OF THE STOMACH. Maurice Loeper, Paris, *Le Prog. Med.*, October 4, 1913. The author employs a diet low in proteid and with the addition of about 100 grams of sugar, either as such or in jellies, conserves, etc. This diet is used for about 5 days, glycosuris, if appreciable at all doing no harm. This amount of sugar adds about 400 calories and facilitates both general recuperation and healing of the ulcer. Various tables of nutritive ingredients are given but these are not reproduced as similar tables have been issued by our Government and can be found in several works on dietetics, in more elaborate form. (Note: Having determined by estimates of average diet of persons in ordinary health that the ordinary American dietary contains about 100 grams of sugar a day, in addition to sugar taken between meals in the form of candy, fruits, soft drinks, etc., and having made an estimate of personal dietary as ordinarily containing 150-225 grams of sugar a day, in various forms, we are not much impressed with the designation of this diet as "saccharated." However, the use of sugar in gastric ulcer, after the period of emergence, should be fairly liberal, though Loeper's diet is, from the American standpoint, rather a moderate restriction of the ordinary diet in this respect, than one to which sugar has been intentionally added.)

Radiant Energy Not Curative of Cancer. Czerny of Berlin, with an experience of 4,000 cases since 1906, holds that radium and mesothorium have practically identical action, that even X-rays do not penetrate more than 4—5 c.m. to have a destructive action, and that while superficial cells are killed by any of these forms of radio-activity, the deeper cells are stimulated.

Moderate Smoking is considered harmless by P. K. Pel of Amsterdam, our Associate Editor, *Berliner Klin. Woch.*, No. 11, 1914.

The High Pressure Bogey. Solomon Solis Cohen, Med. Rev. of Revs., Feb., 1914, contends that the sphygomanometer is not greatly superior to the tactus eruditus in estimating pressure and that it is infinitely superior for estimating volume, rapidity, regularity, character of pulse wave, etc. In leaky heart, high pressure is a necessary compensation. He deprecates the tendency to use vascular depressants without careful consideration of all the elements of a case.

Pertussis. Inaba, Zeit. fuer Kinderheilkunde, has found the Bordet-Gengou bacillus in 78 of 81 cases, in 66 in pure culture. 18 cases, not clinically whooping cough, gave negative results. Mallory & Horner, Jour. of Med. Research, Nov. 1912, have found the same organism and believe that it interferes mechanically with the action of the cilia of the trachea and bronchi. They have reproduced the disease and recovered the germ from four young animals. Whooping cough causes 11.4 deaths per 100,000 population, scarlet fever 11.6, measles 12.3, diphtheria only 3.4—indicating relative dangers not ordinarily comprehended. Various authors report favorable results from a vaccine. (Interstate Med. Jour., Jan., 1914).

Lithopaedion. The Lancet, Dec. 27, 1913, records a Toronto case, retained 42 years, during four succeeding normal pregnancies and finally removed by laparotomy.

Adrenalin Glycosuria. Anastazy Landau, Zeit. fuer Klin. Med., Vol. 79, sections 3 and 4, verifies the belief that 150 grams of dextrose do not normally produce glycosuria, though the sugar is increased in the blood. The joint injection of adrenalin causes dextrosuria provided dextrose or a carbohydrate yielding it under digestion. The administration of levulose does not, however, cause levulosuria. Cocaine increases the action of adrenalin while opium diminishes it, by delaying the mobilization of glycogen and reducing the secretory activity of the kidney.

Sugar for Cleaning Hands, instead of corn meal is advocated by Douglas H. Stuart, Med. Council, Jan., 1914.

Phenol and the Wasserman Reaction. E. Signorelli, Zeit. fuer Immunitaetsforschung und Exp. Therapie, Vol. 19, section 2, finds that by diluting the serum ten times with physiologic salt solution containing $\frac{1}{4}\%$ phenol, the sensitiveness is increased. Whether this observation will lead to clearer cut diagnosis or whether it will give rise to non-specific reactions he has not determined.

Heat and Infant Mortality, by J. W. Schereschewsky, Surgeon, United States Public Health Service. Reprint No. 155 from the Public Health Reports, Dec. 5, 1913.

1. The action of heat as a direct cause in the summer mortality of infants has been greatly underestimated in the last 25 years. In the future much more weight should be given to its influence.

2. The lethal action of heat is a function, not so much of the maximum and mean temperatures of the external air as of the indoor temperatures, which, in the late summer, may continue to be high, in spite of remissions in temperature of the external air.

3. The action of dirty and stale milk in causing the death of infants has been given a significance which has overshadowed other factors of equal or greater importance.

4. There is evidence to show that a certain proportion of infant deaths are due to specific infections, in the dissemination of which contact infection and flies doubtless play a part.

5. As a result, future activities for the prevention of infant mortality must concentrate themselves to a greater extent on the question of housing, especially the conditions productive of high indoor temperatures, such as overcrowding, narrow streets, and the absence of through ventilation.

6. Poor housing conditions can be partially neutralized by the proper care of babies in the summer. The general public should be educated as to the importance of high indoor temperature in causing infant diseases.

Large Foetus. Dr. Ella F. Gatchell reports, Calif. State Jour. of Med., the birth by breech presentation of a boy weighing 18 pounds, 23 inches tall, chest circumference 17 inches, head 15. The father weighed 160, the mother, herself delivered by Caesarian section. 130.

Average Longevity. It is estimated that the length of life, 400 years ago, was about 18 or 20, due to high infant mortality, wars, epidemics and violence. 100 years ago it was about 30. Now it is about 40 in civilized countries of temperate climate.

Repeated Caesarian Section. Asa B. Davis, N. Y., Cleveland Med. Jour., Feb. 1914. The N. Y. Lying-in Hospital records 495 Caesarian Sections since 1893. The total maternal mortality was 50. Repeated operations have been done 69 times. Rupture through the uterine scar was noted in 6 subsequent labors.

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ORIGINAL ARTICLES

The Significance of Albumin in the Urine.

A Symposium Conducted by Section IV of the Rochester Academy of Medicine on Wednesday evening, April 8, 1914. The Chairman of the Section, Dr. John M. Swan, in the chair.

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The Chemical Tests for Albumin.

Charles R. Witherspoon, M. D.

Serum albumin alone is of clinical importance; the Bence Jones Proteid occurs rarely but is distinguished by the routine application of tests for serum albumin; the detection and isolation of other proteids is valueless.

The tests for albumin are two: The nitric acid test (Heller's) and the heat test. The more delicate tests are too delicate.

Routine examination requires the use of either of these tests with the application of the other in case albumin is found with the first. The technique of these tests is as follows: "The nitric acid test is best performed in a small wine glass. After filling this half full of urine, insert a small glass funnel to the bottom of the urine and gently pour in concentrated nitric acid. If albumin is present, a white ring forms at the junction of the acid with the urine, either immediately or in the course of ten minutes. If carefully performed this test is delicate enough for all clinical purposes, but since some of the albumoses give a similar precipitate, the boiling test should be used as a control whenever a positive reaction is obtained with nitric acid. None of the other rings, observable above or below, but not at the junction of the acid with the urine, is of any clinical importance.

The boiling test: To half a test tube full of urine add three or four drops of dilute acetic acid, and boil the upper three-quarter inch of the urine. If albumin is present a white cloud appears. If the Bence Jones body is present a white cloud appears on heating, disappears on boiling, and reappears on cooling. In performing this test the addition of acetic acid as above described is absolutely necessary to prevent error." Cabot.

The urine should be at room temperature, the light should be daylight, and at least ten minutes should elapse before the final reading.

The Significance of Albuminuria in Acute Infectious Diseases.

John R. Williams, M. D.

The significance of albumin in acute infections is strikingly illustrated in the following brief case report:

American, male, mechanic, 22 years of age, complaining of vomiting, headache, insomnia, and frequent urination. Patient apparently made good recoveries from measles, whooping cough, mumps, in addition to several attacks of tonsillitis—all of which he had before the age of nine. At ten years of age, patient was very sick with scarlet fever, at which time an albuminuria was noted. At the age of fourteen there is a history of severe tonsillar infection complicated by inflamed joints, middle ear diseases and edema of the limbs. Since then patient's history is that of one suffering with impaired

kidneys. An examination of two days ago reveals a systolic blood pressure of 219, a diastolic pressure of 105, and a pulse rate of 105. An examination of 24 hour urine is as follows:

Amount 2640 cc. Sp. Gr. 1005.

Total solids 30 grams.

Moderate amount of albumin.

No sugar; no diacetic acid.

A few blood cells; a large number of hyalin and granular casts.

A functional kidney test showed at the end of two hours an elimination of 26% of the phenol-sulphone-phthalein.

This case is an extreme illustration of the damage done to the kidneys by the repeated assaults of the acute infections of childhood.

Within the past few months thirty individuals suffering from renal insufficiency have come under my observation. Sixteen of these patients were over fifty years of age; nine of them were over thirty-five years. The phthalein functional kidney test showed an impairment of from twenty to sixty per cent.* In twenty, abnormally high systolic blood pressure was found. Eighteen of them exhibited clearly defined evidence of renal destruction by the presence of albumin and casts in the urine. In fifteen of these thirty cases the most significant etiological factor is the history of one or more acute infections, in which tonsilitis, scarlet fever, measles, and whooping cough preponderate.

These cases suggest that the acute infections of childhood frequently become the renal insufficiencies of adult life. Osler states that the kidneys are damaged in from ten to twenty per cent. of the acute exanthemata of childhood. No one can say in what proportion this damage is permanent, but we have reason to believe that when the parenchyma of the kidneys is once destroyed, it is never again replaced. Accordingly, it should be the duty of the physician to watch vigilantly for evidence of renal diseases in the acute infectious diseases. This evidence may appear in a striking form as an acute hemorrhagic nephritis in which the small amount of urine passed will be heavily laden with blood, albumin, and casts. Or in a less serious type of case in which there may be a very small amount of albumin, but in which an edema and other evidence of renal insufficiency will be evident. A third and still more difficult type of case is the one in which little or no albumin

*Phenol-sulphone-Phthalein injected intravenously. Kastle-Roberts colorimeter used.

is to be detected and in which there may be at times complete absence of evidence of renal diseases. In this third type of case it may only be detected after weeks or months of careful observation. The symptoms of anemia, languor, and other illly defined ailments finally suggest to the physician that he is dealing with a case of renal impairment.

In conclusion, while the presence of albumin in the urine of a patient with an acute infectious disease may be a transient phenomenon, in many cases it is indication of renal destruction, which may ultimately prove to have a serious prognostic significance. Accordingly, the urine of every patient ill with an infectious disease should be carefully watched for evidence of kidney disease and the patient should be safeguarded by proper dietary treatment, rest, medical treatment, to limit renal destruction.

The Significance of Albuminuria in Chronic Diseases of the Respiratory System.

E. G. Whipple, M. D.

I regret very much that from the literature or from my personal experience, I can find very little of importance on this subject. In treating the subject I will assume the term albuminuria to mean the commonly accepted clinical application of the word which includes a large number of related substances not strictly albumin but which, alone or combined, are of clinical significance and may be included under the broad term albumin.

The most common and most important chronic respiratory disease is pulmonary tuberculosis and albuminuria plays a small role in any phase of the consideration of the disease.

Dorland's Dictionary, under the term albuminuria defines "Albuminuria pretuberculosis," as a condition preceding clinical signs of the disease. I personally, do not believe such a condition exists, in reference to pulmonary tuberculosis, as a clinical entity. There is no doubt but that the presence of albumen in the urine especially if interpreted as a definite nephritis, lowers the resistance of any individual and so renders him more susceptible to tuberculosis—or any other infectious disease, for that matter. Barringer quotes a series of 396 individuals examined for life insurance, in which he found albumen; some with albumen alone, others with hyaline casts, others with granular casts, some with both hyaline and granular casts in addition to the albumen. Of these 396 cases 25 died within ten years and only three died of neuphritis while

8 died of pulmonary T. B. He draws the conclusion that the presence of albumen with or without casts predisposes to T. B. So it does and so does any pathological condition which lowers the resistance of the individual.

Not a few articles have been written in reference to Orthostatic Albuminuria and its relation to Pul. T. B. There seems to be many conflicting opinions. Ludeke and Sturm examined the urine of 140 T. B. patients. Sixty were incipient, 50 in the second stage and thirty in the third stage, 103 of the 140 showed a positive re-action to albumen after being on their feet for one hour. There was no trace in 8 healthy controls. He concludes that orthostatic albuminuria in these cases was due to the action of toxins and an auto-intoxication in some few instances. His most important conclusion was that orthostatic albuminuria may reveal incipient T. B., when the albumen can not be explained in any other way. Gamolitsky states that orthostatic albuminuria does not occur except in functional disturbance of the kidneys, especially from the toxins from infectious diseases. Arnold, on the other hand, examined the urine of 44 patients with chronic T. B. of the skin—8 with psoriasis and 33 with syphilis and found no trace of albumin in the skin diseases but present in the early and untreated cases of syphilis as often as in T. B. He concludes that it is NOT to be regarded as a sign of T. B. but rather a sign of a chronic infection and intoxication and not of specific import. It would seem to me that the latter is the better conclusion and I do not consider orthostatic albuminuria of any importance in the diagnosis of Pul. T. B.

When forced feeding of T. B. patients was considered good treatment, many cases developed albumin in the urine with and without hyaline and granular casts and their general condition was no doubt made worse. Feeding an inactive patient on a large amount of proteid food and with large amounts of liquid often did harm but most of these cases which have come under my observation cleared up very readily under a proper dietary unless they were advanced cases. This form of albuminuria may be seen in any stage of Pul. T. B. and is of importance if continued over a period of two weeks. It is also of importance in that it shows that Pul. T. B. lessens the functional activity of all organs and so it has assisted us in our treatment—showing the fallacy of imposing an extra burden upon an already weakened organ.

Albumen is found in the urine of T. B. patients most often in the terminal stages of the disease when evidence of a mixed infection is apparent and the system is overwhelmed by the toxins of the disease. It is usually accompanied by either hyaline or granular casts or both and is of importance only in

prognosis, usually meaning that death will soon follow. There is usually oedema of the ankles and face, although this oedema does occur in the terminal stages, due largely to the weakened circulation and when no evidence of a kidney lesion can be found.

The consideration of albuminuria in other chronic respiratory diseases is of less importance than in T. B. In bronchiectasis and Pul. abscess albumen occurs especially in the terminal stages when the system is poisoned by the absorption of toxins and it is again only a manifestation of an intoxication which may occur from practically any chronic infectious disease.

In asthma when we find albumen, especially with casts we should not consider the asthma as anything other than a local manifestation of a kidney condition. If it is the so-called bronchial asthma the urine shows nothing relating directly to the disease. In chronic bronchitis and chronic pleurisy the urine shows nothing of importance to us.

Albumen in chronic respiratory diseases, then, in almost every instance, is a manifestation of an intoxication from the infecting disease. Occasionally from overtaking an already weakened organ albumin may be seen, as for instance when a resting patient is over-fed, especially on a diet of proteids with a large quantity of fluid.

This responds to treatment in early cases. Pul. T. B. is the most important chronic respiratory disease and albumen occurs most often in the terminal stage and is of grave significance. There is no conclusive evidence that orthostatic albuminuria is of value in the diagnosis of Pul. T. B.

The Significance of Albuminuria in Chronic Diseases of the Circulatory System.

N. W. Soble, M. D.

Mr. President and Fellows of the Academy:—

In considering the significance of Albuminuria in Circulatory disease, we must first of all bear in mind the following facts which are now firmly established. In the first place we must remember that one of the most important functions of the normal kidney is its refusal of passage of proteids from the blood, whilst it allows free passage of the end products of metabolism. Whenever we find Albumen in the urine it signifies first of all that some of the blood proteids are not being held back as they should be. Whether the mere presence of a more or less marked trace of Albumen in the urine is an in-

dication of disease in quite another question. Thomas Fuller wrote "Reasons drawn from the urine are as brittle as the Urinal." Just as structural diseases of the kidney may occur without albumen, so may Albuminuria exist quite apart from any structural disease. Von Leube says that Albumen, even a trace, when persistent, especially in a man over forty, is usually due to beginning Endarteritis, affecting not only the general vascular system, but those of the kidney. On the other hand Osler says,—"Albuminuria, in the case of a man over forty with or without a few hyaline casts, is not of much significance except as an indication that his kidneys, like his hair, are beginning to turn gray with age. This question has been largely discussed by many writers, notably Senatour, Von Noordin, Osler, Diulefoy. Whether there is such a condition as physiological albuminuria without any lesion of the circulatory system is as yet not fully decided. But the fact that albumin may exist in the urine in fairly well-marked quantities, and for a long period of time without any disturbance of health, may be accepted as true. It is not the purpose of this paper to discuss the question of

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Physiologic albuminuria,
Intermittent albuminuria,
Cyclical albuminuria,
Digestive albuminuria,
Neuropathic albuminuria,

nor Orthostatic albuminuria, as these would lead us entirely away from the principal subject of this discussion. Nevertheless we must not forget to mention that, even in the presence of Circulatory disease, we are compelled to differentiate the source of the albumen when present. Any inflammatory condition of the Genito-Urinary tract, not dependent upon general vascular disturbances will give albumen in the urine. I may mention Renal calculus,

Pyelitis,
Ureteritis,
Cystitis,
Prostatitis,
Seminal vesiculitis,
Urethritis,

and in women, Vaginitis and Leucorrhoea from any source. Spermatozoa in the urine will also give us a trace of albumen. In Splanchnoptosis with moveable kidney we often get a trace of albumen. And I need not mention all the infectious dis-

eases, which as you well know are often accompanied by Albuminuria. It is important that we keep constantly in mind the fact that the kidney is acutely compensatory in its relation with the entire circulatory system, that it bears the burden of the blood-tide flowing through it; whenever albuminuria is associated with circulatory disease it signifies that compensation has failed, and that passive congestion of the kidney has occurred, and that the secretory function of the kidney has been altered: whether this alteration is due to increased pressure alone, or whether it is due to alteration of the structure of the epithelium of the tubules we cannot say. The possibility of these changes is enhanced by the variation in the blood pressure between the Renal artery arising from the abdominal Aorta on the one side, and the Renal vein discharging into the Vena Cava on the other. Thus any disturbance of the general circulation that is sufficient to alter the normal blood supply of the kidney will eventually interfere with the function of the kidney. Taking these facts into consideration, coupled with that we know of the histology and physiological anatomy of the kidney, studies of which have recently been made by Landengren, it can be positively affirmed that other conditions remaining the same, the secretory function of the kidney will vary with the amount of blood passing through it. Recent experiments made by the above-mentioned author, prove that the kidneys are very vascular organs, that the quantity of blood which passes through them is very great. It is estimated that in one minute of time an amount of blood flows through them equalling the weight of the organ.

It is especially to be remembered at this point, that the flow of blood through the kidney, and therefore the secretory activity, is affected by conditions affecting the general arterial pressure; any change which will increase this difference in pressure between the blood in the renal Artery and the renal Vein will tend to augment the flow of blood through the glomerulus, and thus directly influence the secretory function. Hence it appears perfectly reasonable to expect, in a given condition of circulatory disturbance we must soon find manifestations in the urine by the presence of albumen in varying degrees. When one considers the rapidity of tissue change, the large mass of material which must be eliminated by the kidney in circulatory diseases, also the marked variation of blood supply, it is not strange that not only the function but the structure of the kidney should soon manifest alteration. With the advent of the new era in clinical medicine, and with the adoption of systematic routine examination of the urine in all cases, the profession is awakening to the fact that the kidney is often the first to give us warning of the existence of circula-

tory disturbance. While at all times, the mere presence of albumin alone in the urine can not be taken to mean the positive existence in quantities that are marked, and especially when accompanied by other elements of kidney structure must be taken by the clinician as an indication of the existence of circulatory disturbance. The value of this significance, or the exact amount of weight we are to attach to the finding will of course depend upon many other circumstances, some of which have been mentioned, but this much can be positively accepted, given a case of disease of circulation, with albumin in the urine, it becomes the duty of the clinical observer to proceed further in his search for additional evidence of structural kidney lesion.

The term "Cardio-Vascular-Renal" disease is so suggestive of the exact condition present in many instances, that it has come to be used as a distinct name for the disease of these three parts of the organism, the name itself being explanatory of the pathology and the prognosis.

In any given instance of Cardio-Vascular-Renal disease it is often doubtful for a long time whether the patient will finally succumb to Cardiac disability, to Apoplexy from diseased arteries, to a general Arterio-sclerosis possibly of the Coronaries, or to Uraemia from Chronic Intestinal Nephritis. It is also many times impossible to tell where the disease first started. The beginning may be chronic Endarteritis with preceding hypertension, or a slowly developing chronic interstitial nephritis. In some instances an insufficient heart may cause so much passive congestion of the kidneys that they like the liver, may become the seat of secondary cirrhosis. But in all of these cases, the urinary examination, if made early and often, employing always a twenty-four hour specimen, will often give us albumin present in the varying quantities, and this will lead the careful clinician to extend his search further for other signs of structural kidney lesion. The Nephritic part of our triad is often very insidious in its origin, the first indication usually being prolonged hypertension, with its accompanying symptoms. For months there may be nothing abnormal in the urine and often the most careful search is necessary both for albumin and casts. It is wise to examine specimens passed early mornings and those passed immediately after meals. Quantitative tests of twenty-four hour specimens are valuable, and when albumin is found we must not rest here, we must satisfy ourselves that the albumin is not from some extraneous source.

The Significance of Albuminuria in Chronic Diseases of the Genito-Urinary System.

W. F. Plumley, M.D.

I assume that the word albuminuria, as used in the subjects assigned this evening, refers to serum albumin and not to nucleoproteids and other albuminous substances sometimes found in urine.

We often hear the statement made that "albumin is accounted for by pus." This expression is almost invariably inaccurate and misleading. A large quantity of pus gives a reaction for only a trace of albumin. Pusy urines usually contain many bacteria and therefore it is difficult, and sometimes impossible, to filter them clear. If a turbid specimen gives a reaction it must contain more than a trace of albumin some of which is of kidney origin.

A profuse hemorrhage will give a reaction for albumin. The presence of casts in such a specimen justifies one in assuming that part of the albumin is from the kidney.

That albuminuria is a common accompaniment of chronic genito-urinary conditions, there is no doubt. That this albumin is in most cases of kidney origin, there also is little doubt. In the presence of chronic inflammation anywhere along the genito-urinary tract there is always the possibility of the infecting agent under favoring conditions working its way up to the kidney.

There seems to be little doubt that this does occur from time to time in some cases. Each small focus of inflammation in the kidney leaves a small scar. In time the kidney becomes a mass of scars and the same local and general changes and effects are found as in the case of ordinary red granular contracted kidney.

Any condition which causes a back pressure of the urine upon the kidney may be accompanied by albuminuria, e. g. Urethral stricture, enlarged prostate, pelvic tumors, floating kidney and obstruction to the ureters. Albumin of the above origin disappears when the obstruction is removed, except in prolonged cases, when the resulting kidney changes are much the same as in frequent kidney infections.

Irritation of the pelvis of the kidney may result in albuminuria. It is therefore a variable symptom in chronic tuberculosis of the pelvis, renal growths, renal calculus, etc.

There are some rare causes of albumin not necessarily included under my subject which I will merely mention: Systic disease of the kidney, new growths, thrombosis of the renal vein and inferior vena cava, infraction of the kidney.

In arriving at a conclusion as to the cause of albumin in any case the possibility of some genito-urinary factor should be considered. One is aided in making a diagnosis. First by obtaining the urinary history in detail, particularly regarding prolonged or repeated inflammatory conditions and urinary obstruction. Second by studying the sediment under the microscope. The presence of casts places the responsibility on the kidney. The kind of cast may give positive assistance particularly when it happens to be of the pus or blood variety. The character of the cellular elements in the sediment may help, but is apt to be misleading unless we remember that blood or pus must be present in large amount to account for more than a trace of albumin. In conclusion—A urine which shows more than a trace of albumin indicates the probability of one of the following conditions: nephritis—acute prostatitis or profuse hemorrhage. - A trace may be found in (1) back pressure of urine on the kidney (2) a considerable quantity of pus (3) a moderate hemorrhage (4) subacute prostatitis (5) an irritation of the pelvis of the kidney.

The Significance of Albuminuria in Chronic Diseases of the Alimentary System

W. V. Ewers, M. D.

Albuminuria is a fairly frequent complication of many digestive disturbances.

According to Gastoigne, there exists a real dyspeptic albuminuria. It is generally found in old dyspeptics, or those suffering with so-called nervous (?) dyspepsia, who drink from three to four liters of milk a day. Gastoigne concludes that the albuminuria is directly due to the drinking of such large quantities of milk. He thinks he has proven this by the fact that he has found lac-albumin in the urine of these patients. He acknowledges, however, that the kidneys must be susceptible, as other dyspeptics upon the same diet do not secrete albumin. It seems to me that these are probably cases of digestive albuminuria, due to the taking, for these patients, of excessive quantities of proteins. This amount of milk represents from 99 to 132 grams of protein. A similar albuminuria is at times produced by the eating of large quantities of eggs, cheese or meat.

Chronic constipation is another condition frequently accompanied by albuminuria and cylinduria. Experiments which have been undertaken seem to show that the constipation pro-

duces a venious stasis, which, in turn, causes the albuminuria.

The albumin will disappear after a thorough evacuation of the bowels. This would seem to confirm the correctness of the diagnosis in such conditions. In none of the reports of such cases are the blood pressure findings given, which, if stated, would help in removing any doubts one might entertain in regard to the correctness of the diagnosis.

Strumpell speaks of albuminuria accompanying a severe attack of gastric chrisis. We have at the General Hospital at the present time a case of gastric chrisis in which albuminuria and cylinduria are both present.

Gastric hemorrhage, and, according to Van Noorden, severe gastric cramps, are often accompanied by quite a marked albuminuria.

From 35% to 72% of all cases of carcinoma of the digestive tract show albuminuria.

Ewald speaks of the occurrence of albuminuria in acute disturbances of the digestive tract, especially acute intestinal occlusions.

After quoting the statements of others in regard to the digestive conditions in which albuminuria is observed and the quantities of albumin found, Boas makes the statement that according to his personal experience, it is the exception to find more than a trace of albumin in carcinoma of the oesophagus, stomach, the intestines or the liver.

My own rule has always been if I find albumen and casts, or albumin alone, in a mild case of digestive disturbance, to consider that the digestive disturbance is probably the complication and treat the case accordingly.

If we can be sure that the albuminuria is of digestive origin, the prognosis of course is very much better, for a digestive albuminuria per se, is of no significance. On account of the fact that nephritic patients are prone to digestive disturbances, we should scrutinize our cases very carefully before making a diagnosis of digestive albuminuria.

In severe gastric hemorrhage and in carcinoma, the origin of the albuminuria is probably the same as in these conditions arising in other parts of the body and needs no special comment here.

In conclusion, I think the safest rule to follow is before classifying an albuminuria as of digestive origin, to try and see if it will not fit into some of the other conditions under consideration this evening.

Remember, the only digestive disturbances commonly accompanied by albuminuria are chronic constipation, some cases of chronic dyspepsia, gastric hemorrhage, carcinoma, and intestinal obstructions.

The Significance of Albuminuria in Chronic Diseases of the Nervous System

Edward L. Hanes, M. D., Rochester, N. Y.

Albuminuria in neurological practice is often a transitory symptom, without marked significance so far as the neurological process is concerned.

There are a number of brain and meningeal conditions wherein slight traces of albumin are occasionally observed, but in which the relationship of the underlying neurological state is often obscure, though at times it may be assigned to general altered conditions of the blood; while at others it appears to be part of a widespread condition throughout the body of rapid tissue metamorphosis.

It is a matter of occasional observation that episodes of emotional stress, or excitement, in otherwise apparently normal—or at most nervously organized—individuals often exhibit albuminuria during or following such upsets; while Strumpell refers to a condition of “cyclic” albuminuria in children who are sometimes healthy and strong, though more often nervous and anemic. These children often complain of headache, malaise, general weakness and languor, pain in the limbs, palpitation, anorexia, etc., and the albuminuria is usually to be traced to variations in bodily rest and activity—when quiet, no albumin, and the morning urine entirely negative, but after being out of bed for a short time and moving about actively, distinct albuminuria appears, especially after athletic exercises. In none of these cases is there suspicion of actual kidney lesion and in none are we able to postulate other significance to the appearance of albumin in these urines than constitutional predisposition to such reaction.

It may be said, therefore, that in general, albuminuric conditions are more or less transitory in primary nervous and mental disease, and have little special significance except as they point to individual idiosyncrasy or to accompanying constitutional involvement of the organism. There are some noteworthy exceptions, however, which interest us largely from the standpoint of differential diagnosis.

In the toxemias of almost every type wherein a selective or predominating reaction on nervous tissue occurs, albuminuria often serves to complicate the general nervous picture, just as in similar toxic states manifesting their primary influence in other organs and portions of the body; thus in plumbism, and in mercuric poisoning, as well as in conditions of acute alcoholic intoxication, albumin is frequently noted among the urinary findings, and probably points to definite irritation of

the secretory structures of the kidney. For similar reasons, also, in close analogy with the condition observed in the acute exanthematae, febrile meningitic states, particularly cerebro spinal meningitis, exhibit decided tendencies to albuminuria, often accompanied by casts.

As a result of the tremendous elaboration of nervous energy and accompanying tissue change noted in the spasmophilic and convulsive disorders, such as ex-ophthalmic goitre, tetany, delirium tremens without kidney lesion, in active maniacal outbursts of psychomotor excitement, and following epileptic convulsions, it is not at all unusual to observe albumin in the urine, serving merely as an index of the intensity of the metamorphic process.

In states of senile change, particularly those characterized by cardio-vascular sclerosis and high blood pressure, we have come to know that traces of albumin in the urine of these cases is a common finding, and I believe we usually regard it when present in small quantities as of no serious significance, except as it points to the kidneys as being involved in a rather widespread process. It is not surprising, therefore, in those extreme cases which still further emphasize the extensiveness of the process by inducing dementia of pathologic degree, to find in them evidence of albuminuria. In certain of the senile dementias, however, there appears to be a predilection to sclerosis and atheroma of the cerebral vessels quite out of keeping with the evidence of vascular decay elsewhere throughout the system, and in these cases, frequently of almost complete annihilation of the faculties, one is astonished to find the urine practically normal on examination.

It is in these cases, too, of cerebral arterio-sclerosis with high blood pressure that we have come to expect the apoplexies, and here again in the pre-apoplectic stages when a number of neurotic symptoms present in the form of dizziness on rising or suddenly changing posture, headache, numbness of the extremities, mental haziness, somnolence or abnormal wakefulness, etc., the picture is frequently complicated by albuminuria; to be likewise observed at times on the occurrence of and following the stroke itself.

One of the most difficult tasks which we sometimes meet clinically is the differentiation between the coma and convulsions of uremia due to Bright's disease, and that occurring in the course of organic brain diseases in the nature of cerebral hemorrhage or embolism, pachymeningitis interna hemorrhagica, a fulminant attack of acute infectious meningitis, hemorrhage into the lateral ventricles, etc. I believe that, at times, such differentiation cannot be made antemortem, though we may commonly come to believe that the examination of the

urine will reveal diagnostic characteristics. All these conditions are apt to exhibit albuminuria, though the presence of large quantities of the various casts may point, somewhat distinctly, toward the kidneys as the source of trouble. Undoubtedly Cabot's contention, that almost never do uremic symptoms of coma and convulsions appear out of a clear sky, holds much of value for us in approaching the problem of differential diagnosis, and we should remember that headaches, epileptiform attacks of mild intensity and transient duration, retinal symptoms, localized oedemas, tremors, nerve spasms and twitchings, states of altered mentality, etc., which we group as symptoms of chronic uremic poisoning, usually precede the appearance of actual coma and convulsions. I believe, nevertheless, when he states that he practically excludes uremia as a diagnostic possibility in conditions of coma in the absence of such preceding symptoms, he goes too far. In the great majority of these cases it is probable, however, that a careful history of onset, together with the urinary findings of albumin and casts will serve to clear up the diagnosis.

In certain conditions of obscure mental phenomena an examination of the urine with the determination of albuminuria may lead directly to a diagnosis, as in a recent puzzling case falling under my observation:

The patient, a powerfully built man, aged 55, and weighing about 220 pounds, was formerly an engineer, but gave up this occupation because of rheumatic difficulty. Two years ago he presented a well marked diabetic state, and underwent treatment for this disease until coming under my care, about October 1, 1913. At that time he was on a rigid carbo-hydrate free diet and his urine contained no sugar, nor other abnormal elements. He had recently developed prostrating headaches, with outbursts of emotional excitement against his wife, whom he accused of being interested in and on the watch for other men; these outbursts alternating with periods of sullen depression. He had partial insight into his condition but stated that when the spells came he could not seem to control himself. His blood pressure recorded 259 mm., and aside from this feature there was little to suggest the causation of his trouble. He was allowed a more liberal diet, his urine being tested for sugar from week to week with never even a trace being noted. Many tests for albumin were also made with negative results, till ultimately in January, of the present year, a single sample 24-hour urine gave distinct reactions by both the heat and nitric acid tests, while microscopic examination revealed considerable quantities of hyalin and granular casts. Since that occasion the urine has shown albumen reactions at rare intervals, though casts are nearly always present on examination.

In view of the cardiac hypertrophy, high blood pressure and urinary findings I have felt certain that we are dealing with a case of interstitial nephritis, complicated by mental symptoms, and the diagnostic significance of presence of albumin in the urine, even though negative tests were performed for weeks, is quite obvious.

The Significance of Albuminuria to the Surgeon

C. W. Hennington, M. D.

It is now generally recognized that the mere absence of albumin, and of casts as well, by no means guarantees the kidneys to be in good condition. It, therefore, follows that in planning an operation, we must in certain cases keep the possible existence of a chronic nephritis in mind. We must look to other findings as low specific gravity, quantity, relative day and night amounts, and perhaps do a functional test as well. Above all we must look for clinical symptoms and signs of kidney disease especially as to evidence of hypertension with accompanying cardiac and vascular changes.

In fact, before the operations in which there is no necessity of haste, we should study the patient carefully, not alone as to the kidneys, but all the other organs as well, in order to determine the vital capacity or operative resistance. The recognition before operation of an impending acidosis and therefore by appropriate treatment preventing the distress and danger of this kind of post-operative vomiting, is also a matter worthy of our attention.

However, in this discussion we are concerned more particularly with the significance to be attached to the actual presence of an albuminuria. In other words, to what extent it increases the operative risks, both as to the ease and safety of immediate recovery and as to the effect on future health.

In acute surgical diseases there is often an accompanying albuminuria. But if the diagnosis is clear, operation should be done quite regardless of this albuminuria. It is probably merely secondary to the disease itself and need give no alarm, and certainly should not in any way delay the operation. A well chosen anaesthetic and energetic post-operative treatment are all that is required.

But in all chronic surgical conditions which happen to have an associated albuminuria, we find ourselves challenged to investigate the condition in greatest detail. The most complete urine examinations are demanded in every case and perhaps a functional test of the renal capacity. We should find

out how well the heart is able to cope with its load and perhaps attempt to discover the functional or reserve capacity of the heart muscle. The usual general investigation of the other organs is to be made. All this takes time but in the past we have erred by hurrying too much in these chronic cases to get them on the operating table. Thus, after every available fact is known, we can sum up that individual case and decide on the best course. It is seldom that we are compelled to choose on a clear cut question, "To operate or not." Usually there are several other alternatives such as a few days or weeks delay for medical treatment, or a change in the character of the proposed operation, or finally a consideration of the choice of various methods of anaesthesia, both general or local.

Failure to give sufficient attention to all these matters is sometimes followed by a death at operation or an early post-operative death. As a rule the results are not so extreme and self evident. In fact, they entirely escape the observation of the careless man who is not interested in these conditions. The most common results are post-operative distress, vomiting, restlessness or drowsiness, rapid pulse, pain in the back, and other more well known symptoms of kidney disturbance. At times we invite an acute anaesthesia nephritis with all its dangers both present and remote. Most often we are merely inconvenienced by a delayed convalescence and are not aware that our operation has lastingly impaired the kidneys and that patient's chances of a comfortable life. Matters such as these are well worth our consideration.

The Significance of Albuminuria to the Obstetrician

W. M. Brown, M. D.

The answer is easy—in a way—It means danger. It is the "Stop, Look and Listen" on the Physiological Highway of Pregnancy and Labor. Modern social life and the changes in the progress of civilization have so altered and obstructed the channel of navigation in this condition that Nature has been forced to place various beacons for our guidance and the obligation is upon us to observe with an eternal vigilance and an understanding to interpret the signs that are so placed along the fairway, for on that vigilance and understanding will many times depend not only the life of mother and child but their future state of usefulness or dependence in the social cosmos.

But is the answer to our query easy? Having observed

that there is albuminuria, what danger do we anticipate? From what does that danger arise? And further involved and implied in the question is what to do in the presence of the danger.

In order to answer these questions it is necessary to be able to differentiate the albuminuria in its etiological aspect. There are three chief forms of albuminuria in pregnancy. The most common and most important one is an albuminuria from the toxæmia of the pregnant condition; it is due to an acute change in the kidney caused by an effort to eliminate the toxin which causes eclampsia or the insufficiently oxydized proteins from the liver, the function of which has been interfered with by the toxin, or perhaps from the accumulated excreta from the foetus.

The albuminuria from chronic nephritis and cardiac change will probably antedate the pregnancy. The other form is due to the contamination by protein elements from the urinary tract below the kidney. It is agreed that in all cases, except those of the very rare form of functional or orthostatic albuminuria, the loss of albumin by the urine, unless it may be by contamination, means a compromise of the kidney function.

It has been said that the condition of pregnancy is the test of bodily fitness and that in this struggle the kidney is the organ of weakest resistance. So marked is this defect that von Leyden and the Germans have described what they call "The Kidney of Pregnancy."

In this condition the kidney is large, pale, soft, grayish yellow in color and microscopically shows fatty changes, but no infiltration of leukocytes or vascular changes. This change in the kidney takes place, in a greater or less degree, in a very large proportion of pregnancies, and as before stated it is due to a direct irritation from the toxin of pregnancy or its effects.

The first evidence of these changes may be the presence of small amounts of albumin in the urine and this, when found should be most carefully watched for the transition from the simple "Kidney of Pregnancy" to a grave nephritis may be sudden and violent and a kidney which allows the passage of albumin is some evidence of the virulence of the toxæmia and may be a guide as to our treatment.

Increasing amount of albumin, with the presence of tube or blood casts, together with a deficient nitrogen elimination, after a reasonable test of treatment, should indicate the necessity of emptying the uterus.

While the albuminuria from chronic nephritic change must be carefully watched and treated because it is apt to progress more rapidly in the pregnant condition, it has been observed

that these patients are not more liable to have eclampsia than other women.

In them, beside the more rapid degeneration of the kidney and heart, the chief danger is one of placental changes, which interferes with the life and growth of the foetus and often results in an early miscarriage and death of the child.

The so-called functional albuminuria may be present before conception and is never aggravated by pregnancy.

True, albuminuria of pregnancy, as a rule, comes after the twenty-fifth week, and if of a considerable amount and increasing with casts should be vigorously treated, at the same time watching the associated signs of toxæmia. Retinal oedema with degeneration may result in defect or loss of vision if allowed to go on.

It is stated that albumin may be found in over thirty per cent. of pregnancies, if the finer tests are made, and fully fifty per cent. of women in labor will show a trace. This is due to renal anaemia from reflex vascular spasm.

Red infarcts of the placenta are generally associated with albuminuria, and, if well marked, cause imperfect development of the foetus, and sometimes cause its death. These infarcts are not, as a rule, found in eclamptic women, being noted only in those cases of true nephritic toxæmia.

Conclusions: Pregnancy with its toxæmia is a severe strain on the kidneys. A large percentage of pregnant women show some albumin in the urine, which is the result of a mild irritation from the pregnant condition, and may become so severe as to result in an acute nephritis with marked degeneration and necrosis of the renal epithelium.

Albuminuria of pregnancy comes usually in the latter half of pregnancy, and may be associated with red infarcts of the placenta.

Albuminuria, which resists treatment, and in the presence of other signs of toxæmia, should be treated by uterine evacuation.

Women with chronic nephritis are not more subject to eclampsia than others. Women with nephritic and cardiac disease are apt to abort early.

The Significance of Albuminuria to the Ophthalmologist

Albert C. Snell, M. D.

The man with the ophthalmoscope has a particular advantage over his fellow practitioners, since, with the ophthalmoscope, he is able to look directly at the blood vessels and other

structures in the fundus of the eye. In this way he is able to observe the exact changes which may have taken place in the retinal blood-vessel walls and in the surrounding tissue dependent on them for its nutrition.

Albuminuria means toxaemia, using the word toxaemia to mean that there is some irritating substance floating in the blood stream. The constant presence of these toxins are sure, sooner or later, to produce structural changes in the retinal blood-vessel walls, and in the retina itself. In fact all structures of the eye—the conjunctiva, the cornea, the sclera, the iris, ciliary body, choroid, and optic nerve are also possible seats for lesions due to albuminuria, although the latter structures are not commonly affected by the toxins of albuminuria. Neither is the clinical picture of inflammation at all diagnostic in these parts. For this reason in the consideration of the significance of albuminuria to the ophthalmologist, I wish to direct your attention simply to the changes which may occur in the retina and its blood vessels.

The retinal lesions are either acute or chronic, depending on whether the albuminuria is acute or chronic. A good example of the acute form is the albuminuria of pregnancy. In this acute form one may either not see any changes in the fundus and the patients be more or less totally blind—a condition known as uremic amaurosis—or one may have an ophthalmoscopic picture that in itself is very characteristic, there being present an oedema about the optic nerve sheath, occasionally some small hemorrhages and enlarged veins, together with some loss of vision. In both of these acute forms the prognosis in regard to vision is usually very good. However, should the latter form continue over very many weeks the prognosis for vision becomes more grave. Should there be a recurrence of the albuminuric retinitis in a subsequent pregnancy, the vision may be completely and irrevocably lost. Here we often have a difficult problem to settle. Should we sacrifice the foetus to save the mother's sight or shall the mother take this great risk of blindness for the sake of a possible living child?

It is in the chronic form of albuminuria that one finds the interesting and significant changes in the retinal blood-vessels. For the sake of classification and simplicity I have been in the habit of dividing the chronic cases into three groups. In the first group are those in which the pathology is gross. Here we have the typical retinal findings of small or large areas of retinal degeneration, exudates, optic neuritis and arterial walls thickened, often appearing as "silver wire" arteries, the arterial walls appearing very white and thick. In the

second group there is no gross pathology, although occasionally we may have present a few small hemorrhages. Arterial walls are slightly thickened, arteries themselves being very straight, and veins dilated and tortuous. In the third group, which is the very earliest stage of arterial changes, we note marked tortuosity of terminal arteries; and a decided depression of the vein at the position of the crossing of an artery over the vein. Occasionally we find the "locomotion" pulse. The latter group of cases have a very special value and significance in that they indicate a beginning arterio-sclerosis, and a stage that may be termed the pre-albuminuric. The ophthalmologist of course can not infallibly prognosticate an albuminuria from the fundus finding, but he can warn the family physician to be on the lookout for the possibility of such a condition. All this data studied with blood pressure, the urine, and the clinical findings will often help one to make a very early diagnosis at a time when the proper therapeutic and dietetic treatment is of most value.

I recently found the following review of an article in Knapp's Archives of Ophthalmology, March, 1914. "Out of twenty-eight cases of chronic nephritis studied by Gordinier (Exophthalmos a common symptom of chronic Bright's disease,) fourteen presented exophthalmos of varying degrees, associated with one or more of the accompanying ocular symptoms, such as those of von Graefe, Stellwag, or Moebius. He believes that the most probable explanation for these symptom is an irritation of the cervical sympathetic system by toxins floating in the blood stream as the result of renal insufficiency." (Archives of Diagnosis, April, 1912.) How many clinicians have noticed an exophthalmos in Bright's disease?

Oxalic Acid in Foods. Albaharry stated that oxalic acid is present in the tomato only in traces, the acid being the bimalate of potassium, which is also present in unripe grapes, cherries, raspberries, currants and sour apples. Malic acid is also present in oak leaves. Charles, Gaz. Hebdomadaire des Sci. Med., July 20, 1913, confirms the above and states that oxalic acid is found in considerable quantities in sorrel, rhubarb stalks and some varieties of peas.

Relation of Thymus to Deaths After Thyroidectomy. Klose, Berliner Klin. Woch., claims that such deaths are due to auto-intoxication from the thymus. Up to 1911, in Rohn's clinic, 8 deaths occurred in 130 cases of thyroidectomy for Basedow's disease. Since then, with conjoint removal of the thymus, no deaths have occurred in 200 cases.

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Vivisection and Actual Facts

It occurs to us that a good deal of the strength of the anti-vivisection movement depends on the lack of actual statistics and definite information, and the impression which antivivisectionists are able to create in the minds of many people, that the medical profession is not willing to come out in the open. A good deal of the lack of harmony is due to the fact that the antis deal fortissimo with physiologic experiments without anaesthesia and the defenders of animal experimentation fortissimo with serums and antigens. Some of the latter arguments have impressed us as implying a much more direct connection with animal experimentation, in vivo, than is actually the case, and much more brilliant results in therapeutics than experience warrants. Frank admission is one of the strongest points in logic and an argument that produces one impression on one's antagonist and is intended to produce another on one's supporters, is essentially weak.

For instance, it might as well be admitted that vivisection, up to the period of the discovery and use of anaesthetics, was, with trivial exceptions, extremely painful. The usual descriptions of curare in medical text books warrant a similar conclusion in regard to its experimental use. Such descriptions do not, so far as we can interpret them, suggest any superiority of curare over ordinary anaesthetics, even from the non-sentimental physiologic standpoint. They suggest further the sceptic inquiry as to whether curare has a special affinity for motor nerves, both from the stand point of a prior probability and as implied in the question as to how human beings subjected to the action of curare, can inform us as to this highly specialized action. An investigation in this particular might

perhaps eliminate one of the best "talking points" of anti-vivisectionists. Even the practical economic difficulties in the way of obtaining curare and its apparent lack of superiority over anaesthetics, suggest further that actual statistics as to its use might have the same effect, at least for present purposes.

It is a well known fact that pain, however caused, interferes to a marked degree with various reflexes. This is demonstrated even by the simplest clinical observation. For example, in regard to absorptive motor, and secretory phenomena of the alimentary canal, pain produces abnormalities of the most conspicuous form. There are whole fields of physiologic and pharmacologic research in which, so far as can be judged from such analogy, pain is far more important as an interfering factor than anaesthesia. The old painful vivisections undoubtedly revealed physiologic facts of great fundamental importance. But, from the modern standpoint, they are crude. It is scarcely conceivable that their repetition would either elucidate more recondite problems or that any form of animal experimentation would serve the purpose of clinical examinations and analyses in justifying conclusions as to strictly human physiology.

These facts are not comprehended by the laity. Indeed, even the laity who are disposed to favor animal experimentation in the interests of humanity—including ultimate welfare of animals—are often imbued with the entirely false notion that the greater the pain, the greater the value of an experiment. On the contrary, as a general rule, a painful experiment is a stupid experiment. There are exceptions to this rule but, so far as we know, they have never been systematically formulated.

A large proportion of modern animal experimentation involves captivity, peculiarities of diet, artificially produced disease, simple procedures such as hypodermic injection, venesection, observation of excretions, taking of temperatures, etc., which are either entirely lacking in pain or involve only such trivial suffering as clinical observation and therapeutics of human patients involve. Rarely do they involve so much discomfort as are entailed in the keeping of live stock for food or even for wool, milk, eggs, feathers, etc.

As stated, some of the defenders of vivisection have given rather exaggerated impressions of the results of animal experiment. Speaking merely as a practitioner, this is unfortunate. It is highly complimentary but decidedly disconcerting to encounter a patient who has the impression that such study has yielded a knowledge of normal and perverted function such as to obviate the necessity of immediate clinical research or who expects that there is an appropriate serum capable of

effecting a prompt cure in a large variety of affections. Even in the medical profession, the same exaggerated ideas are occasionally encountered. As a matter of fact, all the biologic products of marked efficacy against specific infections can be counted on the fingers, perhaps even of one hand. By no means all of these have any direct connection with animal experiment. It is also worth while for various reasons, to give due credit to morbid anatomy, clinical chemistry, the limitation of symptoms to lesions by observation of human symptomatology, noting post mortem changes and the results of operation. We have seen it stated that typhoid fever is one of the diseases whose control depends upon animal experimentation. Now, while such experimentation has yielded some very interesting results, they are mainly negative, confirming the previous conception of typhoid as essentially a human disease, excepting for certain results under highly artificial conditions, scarcely conforming to the strict definition of disease, and it is only in a far-fetched sense that animal experimentation has anything to do with either the sanitary or vaccine control of typhoid.

A thorough study of animal experimentation, as actually carried on, would undoubtedly be of great value to medical science. Such a study should include a careful scrutiny of actual results, scientific and practical as well as statistics of interest mainly from the standpoint of humane societies. For example, a historic review of the pre-anaesthetic period would determine what fundamental facts in physiology and pathology, had been determined by experiment, how far these determinations corroborated accepted theories or facts otherwise demonstrated and how far they corrected misconceptions. The proper value of animal experimentation, human symptomatology and checking of results by post mortem and by operation, clinical diagnostic methods, etc., should be accurately compared. The results of pharmacologic and toxicologic observations, of diagnostic reactions, the utilization of animals for obtaining biologic products, for acquiring surgical dexterity and judging probable results of operations, for demonstrating accepted physiologic facts to students, for observations of dietetic effects and those of other artificial conditions, etc., would include one range of study.

From the standpoint of humane societies, a somewhat different line would be followed. Thus, we should distinguish experiments which involved merely observation terminated by death, utilization for the preparation of biologic material, for diagnostic or therapeutic purposes, literal vivisections under full anaesthesia, terminated by death without recovery of consciousness, experimental operation under anaesthesia with

subsequent observation, artificial production of disease, as by inoculation, painful experiments, with frank statement of scientific and practical value of results, use of curare, etc.

We feel confident that a systematic, statistic study of this nature would afford the profession a strong case, that it would clarify impressions in the profession itself, that it would altogether destroy certain arguments of the antis, that it would limit controversy, among all reasonable persons, to a very limited field, and that it would do away with the annual menace of drastic legislation, largely initiated on account of misconceptions and fostered by the apparent attitude of the profession in concealing actual conditions.

Constitutionality of Legislation Restricting Medical Practice

Certain recent legislation suggests that there has been a close approach to the limit of professional control if not an actual trespass on vested rights. Drug habits are a recognized evil but drugs susceptible of such abuse are equally well recognized as a necessary part of the armamentarium. Physicians are licensed by states. Has the national government the right to interfere with this license, either by imposing restrictions which consume time, entail trouble and render even a conscientious physician liable to criminal prosecution and punishment for technical violations; or by interference with the accepted doctrine of privileged communications; or, according to certain extreme interpretations of the law, by actually removing his license to practice certain accepted phases of his art?

Has even a state, after granting a license, the right to pass similar laws which are retroactive, not of course in their application to individual acts, but as regards the general privileges granted?

Now is the time for the medical profession to consider these matters seriously and broadly. Certain arbitrary restrictions are necessary in civilized life, and it is an accepted principle, that ignorance of the law is not an excuse for its violation. Yet, until recently, it was possible for any man of good intentions and common sense to follow his vocation and daily life without apprehension that he was liable to arrest for violation of a law, except in emergent conditions that naturally suggest inquiry as to legal requirements. This practical expression of individual liberty has been superseded already, for many citizens. In particular, the medical profession is hampered by so many legal details that it requires constant study and anxiety

to avoid infringing their limitations or omitting their demands.

We have readily granted the necessity of reporting actively contagious disease; even of reporting tuberculosis and venereal disease in certain cases. We concede the danger of narcotic drugs, but is this danger greater than for arsenic, mercury, phosphorus and many others? The right of a surgeon to perform certain operations, without delays dangerous to life, has already been questioned by the introduction of ordinances and bills. Every restrictive law passed, establishes a precedent for others. Where is the process of restriction going to stop?

Can Psychic Depression Cause Death?

This question has been put to us recently in several ways, as: Can a person die of a nervous breakdown—referring to a case of which we have no personal knowledge, and described as apparently in good health a few days before death and with no organic disease claimed by attending physicians. Did ——— die because he was discouraged—referring to a case in which different attendants made such discrepant diagnoses, along lines with which we have no special experience that no conclusion could be drawn, although a comparatively recent observation of the case, professionally, along other lines, led to some scepticism as to the existence of serious organic disease. Can a person die of a broken heart? etc.

There is no doubt but that sudden and violent psychic strain may cause death, either through inhibition of cardiac and, possibly, other vital functions, or through the production of apoplexies, etc. Neither can it be questioned that the mental state may turn the balance one way or the other in serious acute illness; nor that it may depress various functions so that the potential life of the individual is shortened and the resistance to various diseases lessened to such a degree that a given organic disease is considerably increased in mortality.

But, without adequate physical cause of death, can it be determined by general nervous depression, such as grief, discouragement, shame, etc.? This is a prevalent popular notion. It is, of course, subject to corroboration by the post hoc propter hoc argument. Is it correct or incorrect? It occurs to us that this is a question deserving serious and scientific consideration and we welcome discussion.

Typhoid and Tuberculosis.

The predisposition to tuberculosis due to typhoid, independently suggested by Reincke of Hamburg and Mills of this country in 1907, has received considerable attention recently. The **Boston M. and S. Jour.**, Feb. 12, 1914, page 259, calls attention to the parallelism of the mortality curves of these two diseases. It occurs to us that there are reasons why testimony, even statistic, on this relation of two infections, should be regarded with scepticism. Tuberculosis has, for many years accounted for just about 10% of the total mortality, the curve declining for each so as to maintain this ratio. Excluding deaths in infancy and traumatic deaths, nearly a fifth of the total human material liable to death from various diseases, actually die of tuberculosis. When so large a proportion of the population is involved, only a marked difference from average incidence and mortality can be considered significant.

The parallelism between the curves of the two diseases can be well explained by the fact that both depend on crowding and by hygiene and sanitation, due to the development of civilization, and both are limited by a higher civilization which meets the problems presented by itself.

Typhoid is one of the diseases in which general health and resistance seem to have little bearing on susceptibility. Tuberculosis, on the other hand is almost the only infectious process in which susceptibility plainly does depend on these factors. (Before denying this statement, check off the list of infections.) It must be admitted that, unless there is a specific opposition of bacteria, any such sickness as typhoid predisposes in a general way to tuberculosis, not to mention the fact that it is only recently that the typhoid patient, seeking aid in a hospital, even in a private room, has undergone an abnormally high degree of exposure to tubercular fomites. Whether, with these qualifications, a genuine predisposition to tuberculosis is conferred by typhoid, is a question to be decided by a sceptic study of the evidence.

Circular Letters. Please remember that the circular letter is a nuisance to the busy man and that it is the worst competitor with legitimate advertising in periodicals. Every answer to a circular tends to deteriorate and advance the cost of periodical literature of every kind. We do not, of course, allude to sending through the mails or by express, bulky catalogues, etc., obviously too extensive for ordinary advertising space.

The National Dental Association.

We take special pleasure in noting the meeting of this organization, the analogue of the American Medical Association, in Rochester, July 7 to 10. The close affiliation of Dentistry with Medicine and both the professional and the practical need of making this bond still more close, are expressed by the invitation to several prominent physicians to address the meeting. It is significant that the subjects chosen are of a highly practical nature; they typify the need of joint professional discussion of common points of scientific observation and therapeutics. The medical profession is cordially invited to attend the meetings and we trust that physicians will be largely represented at Rochester.

This may be an appropriate occasion to remind both professions that they are not more widely separated, even in regard to matters of technical interest, than are the various specialties of the medical profession. It is a matter of convenience that Dentistry is organized as a separate profession, with a special degree conferred by separate schools. In professional polity, even in scientific foundation, the two professions are virtually one.

It may be well claimed that inventive genius and mechanical skill have reached their highest development in dentistry. It may also be claimed that in rapidity of development of professional spirit, of scientific discoveries and their adaptation to practical therapeutic ends, and of that very important item in any business or profession, the accomplishment of satisfactory practical results, dentistry has surpassed every other vocation, with the possible exception of electric engineering and certain limited fields in other professions. And we take pride in the fact that dentistry is, historically, a science and a profession that belongs especially to the United States of America. The very frank and general admission of this fact in Europe has undoubtedly reflected prestige on the medical profession itself.

European Travel.

It is intended to offer here, some general suggestions that may be of service to those younger members of the medical profession who are contemplating post graduate study and to those older ones who have in mind a vacation and who are more or less desirous of applying some part of it to medical study of a less formal nature. It is not intended to enter into

the details of post graduate study and, as those unfamiliar with Europe usually magnify the economic and some other aspects of the problem, more attention will be given to these than may perhaps seem dignified.

In the first place, it is not entirely a matter of patriotic prejudice to state that except for some few lines of scientific work and for the massing together of certain rare forms of disease so that a general experience can be obtained rapidly, just as good post graduate study can be done in America as in Europe. It may be conceded that the average European practitioner is better trained and does better routine work than the average American, although whatever inequality may exist is rapidly passing away on account of the dying out of the men educated under former, deficient standards and the establishment of higher standards in American colleges. But, so far as the leaders of medical thought are concerned, and even those who follow in the first ranks of routine practice, it is now pretty generally conceded on both sides of the Atlantic that there is not much to choose. In many instances, both the individual man and the individual institution in America, are admitted to be superior. In equipment, the average American hospital stands far higher than most of those in Europe.

From the purely economic standpoint, it must also be recognized that the prestige of European study has declined as it has become more common. In fact, we have arrived at the point at which information and ability are judged rigorously by actual facts and not by appearances.

Granting that a recent American graduate must consider time and money closely, it is doubtful whether he should undertake European study until he has definitely decided upon some special line of interest. On the other hand, the longer he waits the more difficult and the less profitable does it become to lose established practice and to undertake a radical change of interests, based on a foreign post graduate course. Not to mention the fact that the man who feels that he must wait till he has amassed a comfortable capital from the proceeds of practice, usually finds that it is all he can do to keep even with daily demands. For a man of mature years, well established in any line of medical work, it is generally advisable to regard the European trip as a vacation, and to supplement it with such informal medical study at clinics or lectures, and such special courses, as may appeal to him.

Within recent years, the slogan has gone forth "See America first." Granted that one has had the usual amount of trips to a dozen or more American cities, he will usually find the

remainder surprisingly lacking in special interest while, with some few exceptions, American small towns are uninteresting. hence, the slogan "See America first" holds good mainly as a matter of patriotic pride, of preference for scenery over historic and human interests, and on account of special interest in certain lines of scientific study, mainly coming under geologic, botanic, zoologic and archaeologic subdivisions. Generally speaking, American scenery is on larger scales than European, but otherwise not superior and for any one seeking thrills in history, and in differences of human life, Europe has a great advantage.

There is no use trying to dodge the fact that more Americans would undertake European travel, if it were not for a dread of great expense and of danger and inconvenience incident to the mere foreignness of the conditions. It is pardonable, therefore, to speak plainly on these matters. For any European trip, of whatever duration, one must count the passage. Roughly speaking, the "ante" is at least \$100 for second cabin passage, plus the round trip fare and incidentals to and from the American sea port. For first cabin, the minimum round trip fare is about \$150, plus the same preliminaries. For obvious reasons, it is strongly advised not to take a second cabin passage unless on a one-cabin ship. Aside from this inevitable expense, it may be estimated, approximately, that the various expenses of European travel will amount to about two-thirds of what they would, on the same scale in America. Of course, if one follows the beaten track of wealthy Americans, or if he makes his trip a round of entertainment and dissipation, he will not find this statement true. It is not only cheaper, but much interesting, to travel as Europeans do, to lodge at good hotels built for Europeans, to eat at native restaurants, to go among the people, to attend concerts and decent theatres and to visit museums and parks, rather than places where one would be ashamed to be seen at home.

As to safety, railroad and other accidents are less common in Europe than America. The system of registration at a hotel or boarding house, on slips returned to the Police Departments, practically insures against mysterious disappearances. Any one who keeps sober, behaves himself and keeps his wits about him, is probably a good deal safer anywhere in western Europe than in America. The average European is also brought up on translations or paraphrases of wild west literature and is just a trifle afraid of an American. But he also regards him as rolling in wealth, and it is self evident that one who displays his money, is ignorant of native languages and

customs, and ventures alone into disreputable places or those distant from the crowd, renders himself liable to annoyance, extortion and violence.

Railroad fares. It should be remembered that in England the ordinary standard is third-class; on the continent, second class; corresponding to American first class coach service, and costing about 2 cents a mile. Third class, continental, is approximately equivalent to suburban trolley accommodations, costs about one and one-third cents a mile, and may be used for short trips comfortably enough. First class costs about 3 cents a mile, but, except for the gratification of pride, and the presence of tidies on the cushions, is really no better than second class. Isolated compartments are common enough in England and are found on short-distance trains on the continent. Otherwise, most cars are built with corridors, have toilet rooms, and for any class resemble a state room on an American parlor car. It is impossible to make exact comparisons between Europe and America, and there are great differences in different countries and different trains, but on the whole, it is evident that railroad travel is no more expensive in Europe than in America. Its accessories are mostly less expensive and the relative shortness of distance as to political divisions, changes of scenery, etc., make it seem much less expensive. To avoid fatigue, to obtain a bird's eye view of the country, and because sleeping car service is not quite so well developed as in America, it is strongly advised to travel only by day. Stop-overs are very freely given and one can usually have a choice of route, even a choice of transfer to boat, between any two division points. But, it should be remembered that European railroads are by no means so liberal in regard to baggage as American, and, both for economy and convenience, it is better to travel with a suit case if possible. At most places, porters can be found to carry baggage to hotels, for a small fee.

Hotels. The average good European hotel charges about 80 cents to a dollar for a room without bath; 30 cents for a very light breakfast; a dollar or a dollar and a half for table d'hôte dinner. Very appetizing and apparently wholesome meals can be obtained almost anywhere, either at a fixed price or a la carte, at about half what they would cost in America, and up to the full American price, according to circumstances. Tipping is more frequent than in America, but the relative amounts are about half for England and about a quarter or a fifth for the continent, not to mention the fact that the original

service, meal, theatre ticket, carriage hire, etc., is considerably cheaper.

Local transportation. Street car fare is usually two or three cents; cabs from 40 to 60 cents an hour, according to city, and upward for those of higher grade. In Paris and some other cities, the inclosed part of a car or omnibus costs double a seat on the roof. The latter is preferable in good weather for the sake of seeing interesting sights in passing, and in bad weather because the ventilation inside is nil. Walking is the most satisfactory way of getting in touch with the life of the people, but one must resist the temptation to overdo it. Incidentally, it may be suggested that shoes are about the only common article in which America surpasses Europe, either in quality or cheapness, and two or three pairs of shoes partly broken in, should be taken. However, counting time and trouble, expense of transportation and the American custom house inquisition, which is worse than for all western Europe put together, it scarcely pays to make ordinary purchases abroad.

Museums and points of interest. Speaking broadly, the best of these are free, but one should not grudge the sums of five to twenty-five cents charged for the maintenance of others for sight seers, nor the very reasonable tips expected by guides, especially if one counts the cost of being near them. For thorough study of a place, a Baedeker is indispensable. It is a poor economy, but very restful, to do a city without this guide book. Local guide books are sold in most cities and towns of resort. They make interesting souvenirs, but cost more in the long run than Baedekers and are about as thorough as our local American city guides.

Actual estimates of expense. A fairly good rough rule is this: Add the round-trip cost to the sea port, to the round trip passage fare, add railroad fare for the actual route to be covered, at 2 cents a mile, add \$5.00 a day, to include hotel bills at about \$3.00 a day and incidentals, add whatever is to be spent for clothing and other purchases. This represents travel on a very comfortable, but unassuming scale. In any large city, one can get a room and meals for a dollar a day, equivalent to what would cost half as much again in America. Such minor incidentals as car fare, tobacco and light refreshments, solid or liquid, costing about half the American price. This last estimate, of course, applies only to stays of a week or more in a place. In England, good second-class hotels and restaurants are about as expensive as in the States, though

generally cleaner, while those of the first class, exclusive of those intended for the rich natives and Americans are approximately on a three dollar a day scale, so that it is hardly worth while to attempt much economy in this way until the continent is reached.

BOOK REVIEWS

Books mentioned may be inspected at and ordered through this office. So far as possible, books received in any month will be reviewed in the issue of the second month following.

The Philosophy, Poetry and Hygiene of the Kiss of Love. Dr. J. C. Bateson, Scranton, 52 pages, \$1.00, illustrated.

Our colleague has prepared a book that is certainly philosophic and poetic, by no means improper, scarcely even erotic. He has shown so much sense in discussing a sentimental subject that we are inclined to suspect that he has not had the varied and extensive experience with it which is usually demanded of an author. For amateur eugenists and sex reformers, we recommend this book as more wholesome reading than some rehashes of the Jukes and Edwards geneologies and professional parodies of what the boy who worked in the drug store used to tell the other boys when he was not professionally engaged in sweeping and running errands and washing bottles. Otherwise, we believe that the best kind of children are bred and reared by love rather than by scientific formulae and that the best antidote to immorality is genuine sentiment regarding the opposite sex. If there is any physician whose soul and sentiment have been thoroughly dessicated by the scientific atmosphere in which he lives, it may do him good to read this book.

Treatment of Neurasthenia, Dr. Paul Hartenberg, Paris translated by Ernest Playfair, M. B., M. R. C. P., Oxford University Press, American Branch, 35 W. 32, N. Y.. 282 pages, illustrated, \$2.00.

For a really scientific work, this is exceptionally free from technicalities. About 50 pages are devoted to the question: What is a neurasthenic. The reader gets a good idea of what

he is but the author expressly waives the ability either to formulate a definition or to explain the actual lesion. Obsessions are described as "only phobias which are past and have become chronic." Phobias are classified and described briefly but without an imposing array of Greek or other roots with phobia attached. In the treatment of sexual neurasthenia, the author is refreshingly free from hypocrisy not to say conventional ideas of morality. The book is thoroughly practical, and valuable because, throughout, the author takes the position of the medical adviser working for a humane end, rather than of a deep student, awaiting an autopsy. French being an unaccented language, it did not occur to the author but we wish it had to the translator or publisher to put an accent half an inch long over the i of neurasthenia.

Treatment of Chronic Leg Ulcers, a Practical Guide to its Symptomatology, Diagnosis and Treatment. By Dr. Edward Adams. 122 pages. Cloth \$1.00. Published by The International Journal of Surgery Company, 100 William Street, New York City.

This is a trite and uninteresting subject. No brilliant and complete pathologic theory has been discovered to account for the condition. It is not one that directly threatens life. It does not belong to any particular specialist and if there is any dispute between the surgeon and the dermatologist as to which the treatment belongs, it is usually in a generous spirit of ceding it to the other. For just these reasons, we welcome this little book as one of the most valuable contributions to medical literature that has appeared in recent years. The profession has settled down to a routine treatment and a complaisantly pessimistic prognosis of one of the most disagreeable ailments which can make life miserable and for which little sympathy is elicited. The author has gone into the subject with a thorough and discriminating study of etiology and pathology as a basis for an equally discriminating therapy. He is not a hobbyist but covers the ground from ointments and lotions to resections and skin grafts.

Lectures on Dietetics, Dr. Max Einhorn, New York, published by Paul B. Hoeber, 69 E. 59, N. Y., 156 pages, illustrated, \$1.00.

The edition of Diet and Nutrition having been exhausted,

the author has deemed it best to publish these lectures, delivered at the N. Y. Post Graduate Medical School, in lieu of a second edition. The lectures are in Dr. Einhorn's characteristic style of delivery, lucid, convincing and occasionally witty. Chapter 1, on the principles of diet and nutrition concludes with a condensed table of principal food stuffs, giving not only content in proteid, carbohydrates and fat but also calories. Chapter 2, on digestibility, cuts loose from the older idea of dependence on rapidity of digestion—meaning practically the time when the major part of rapidity began in the intestine—and adopts as a standard the ultimate amount of waste in the faeces. Six groups of foods are recognized, as regards digestibility, depending mainly on physical state and mechanic difficulty of extraction of nutrients. Each group accordingly, contains food stuffs not ordinarily ground together. Diet for special diseases and constitutional conditions and dietetic regimes follow, the work concluding with Dr. Einhorn's own development—duodenal feeding. While not destined to supplant larger and more detailed treatises, this book gives a good bird's eye view of the subject and it is particularly valuable in stimulating interest in a neglected subject and in dispelling a mass of crude notions that still hang about it.

Arteriosclerosis: A consideration of the prolongation of Life and Efficiency After Forty. Louis Faugeres Bishop, A. M., M. D., New York; published by the Oxford University Press, American Branch, 35 W. 32, N. Y. 383 pages, illustrated, \$3.50.

This is a thorough consideration of the subject, mainly clinical but based on pathologic data and reinforced by X-ray examinations, study of polygraphic tracings, etc. A special chapter is devoted to life insurance problems. The diet is specially considered. The author has included an expression of the opinions of many clinicians both from published articles and from personal letters. The subject of blood pressure, particularly with reference to compensatory high pressure and the requirements of the individual, is sensibly discussed. Cabot's investigations, showing that arteriosclerosis is not especially connected with alcoholism, either positively or negatively, are quoted. In view of the exaggerated popular conceptions of hardened arteries, and even the tendency in some professional men to employ this term to the exclusion of localized diagnosis and to reduce all practical and scientific treatise will be extensively read and pondered over.

A Mind Remedy, John G. Ryerson, M. D., Booton, N. J., 82 pages, price not stated

Clinical reports are given of various diseases, such as asthma, eczema, lateral curvature, locomotor ataxia, irregular teeth, goitre, fibroids, difficult labor, leucorrhoea, puerperal convulsions and many others, have been treated with lactose. The figure, voice, mammary glands, vivacity, skin, etc., have also been improved by this treatment. The title of the book seems one that would be chosen by a sceptic rather than the author.

A Hand Book for the Post-Mortem Room, Alexander G. Gibson, D. M., F. R. C. P., Oxford. Published by the Oxford University Press, American Branch, 35 W. 32, N. Y., 140 pages, \$1.50.

This is a handy and pocketty compend, very concisely written and printed in small but clear type so that the amount of material contained is much greater than appears at first sight. In contrast to the prevailing American type of large and thick books, copiously and perhaps unnecessarily illustrated, a work of this scope has a competitive disadvantage. It would, however, be a poor expression of patriotism to fail to do justice to the advantages to the English type of small monographs of which this is an illustration and whose endeavor is to secure portability, to avoid unnecessary details and to facilitate reference as emergencies occur.

Asthma and its Radical Treatment, James Adam, M. A., M. D., F. R. F. P. S., Glasgow; published by Paul B. Hoeber, 69, E. 59, N. Y.; 184 pages, \$1.50.

This is a clinical work, based on a sound comprehension of the pathologic and, especially, the chemic factors involved. The differentiation of such conditions as cardias and thymic asthma, the relation of asthma to eczema and urticaria, gout, etc., are well discussed. Due attention is given to hay fever and such local factors as nasal obstruction, as well as to I. Walker Hall's purin studies, without attempting to solve all problems on a single theory or to dispense with careful, personal study of the individual case.

Biochemic Drug Assay Methods with Special Reference to the Pharmacodynamic Standardization of Drugs, Paul S. Pittenger, Ph. G., Ph. C., Phar. D., Philadelphia, edited by F. E. Stewart, M. D., Ph. G., Philadelphia. Published by P. Blakiston's Son & Co., Philadelphia, 158 pages, 88 illustrations, \$1.50.

This is a technical compend, with blank leaves for notes. The principal substances dealt with are cardiac stimulants and depressants, epinephrine, ergot, pituitary extracts, cannabis indica, with certain allied drugs and extracts. A general discussion of principles and of technical details is given. While the range of substances is somewhat narrow, the exactness with which the descriptions, even of practical points in comparative anatomy, are prepared and the excellent general discussions well prepare the student for undertaking other problems, as well as for estimating the availability of such newer methods as may be proposed.

Ten Sex Talks to Girls 14 Years and Older, I. D. Steinhardt, M. D., New York, published by the J. B. Lippincott Co., Philadelphia and London, 193 pages, 6 illustrations, \$1.00.

These talks are admirably and temperately written and were originally presented as lectures. We need not discuss them in detail; they are what any physician would say, if he had the skill to put his ideas into language readily understandable by the audience addressed. The work is dedicated to "Our grandmothers, mothers, wives, sisters and daughters." At the risk of seeming old-fashioned and prudish, we feel that any work of this sort should be put into the hands of mothers, rather than of young girls, as a guide to what they themselves should impart to the latter, not all at once, but as occasion arises and also, as advice as to general conduct in which the mother should think for the daughter, rather than trust to the judgment of an immature mind and impressionable nature.

A History of Laryngology and Rhinology. By Jonathan Wright, M. D., Director of the Department of Laboratories, New York Post-Graduate Medical School and Hospital. Second Edition, Revised and Enlarged. Octave, 357 pages, illustrated. Cloth, \$4.00, net. Lea & Febiger, Philadelphia and New York, 1914.

This is not only a valuable contribution to medical history but a very readable book. Among the points of interest we

select: the table showing the close similarity of words for nose in the various Aryan languages; the statement of Herodotus of the high development of specialization among the Egyptians; the general notes of medical development in various ancient civilizations; the persecution of physicians on religious grounds; the detailed discussion of the history of anatomic, physiologic and therapeutic discoveries of comparatively modern or quite recent times; the excellent biographic studies. Those of us who remember when laryngology was not only an unfamiliar specialty in this part of the country but when the word was so unfamiliar that its use as a professional designation required a translation, must admit a feeling of surprise that the specialty is really so ancient. Every laryngologist should have a copy of this book and, as a matter of general medical education, every general practitioner also.

Surgery; Its Principles and Practice. For Students and Practitioners. By Astley Paston Cooper Ashhurst. A. B., M. D., F. A. C. S., Instructor in Surgery in the University of Pennsylvania; Associate Surgeon to the Episcopal Hospital; Assistant Surgeon to the Philadelphia Orthopedic Hospital and Infirmary for Nervous Diseases. Handsome large octavo, 1141 pages, with 7 colored plates and 1032 illustrations, mostly original, in the text. Cloth, \$6.00, net. Lea & Febiger, Publishers, Philadelphia and New York, 1914.

It is fortunate that the name of Ashhurst, so familiar to surgeons of the last two generations, is to be perpetuated in medical literature. This work is, however, in no sense, a revised edition of that of the late John Ashhurst although due credit is given in the preface to the general information derived from the latter, but is a thoroughly modern systematic surgery. As such, it stands on its own merits and fulfills the highest modern requirements.

The Junior Nurse. By Charlotte A. Brown. R. N., Instructor in the Boston City Hospital; Graduate of the Boston City Hospital and Boston Lying-in Hospital Schools for Nurses; late Superintendent of the Hartford Hospital Training School, Hartford, Conn. 12mo, 208 pages, illustrated. Cloth, \$1.50, net. Lea & Febiger, Publishers, Philadelphia and New York, 1914.

One of the best points of this work is that it discusses general hygiene, among other matters, in such a way as to enable the nurse entering a training school, to take care of

herself as well as of patients. The hygiene of the feet alone is worth the price of the book. The style is simple and practical and the range of topics and degree of thoroughness with which they are discussed, is well adapted to the needs of the Junior Nurse. As long as we have "practical nurses" it would be well for physicians to recommend to them, such a work.

Man's Redemption of Man—A Way of Life. By William Osler, published by Paul B. Hoeber, 69 E. 59, N. Y., two small volumes, boxed together, \$1.50.

The first of these is a lay sermon delivered at McEwan Hall, Edinburgh in 1910, the second an address to Yale students, in 1913. Both were given on Sunday and, are most appropriately of a philosophic nature, strongly tinged with religion, but free from dogmatism. It is impossible to review these lectures in much less space than their full extent and, to endeavor to make extracts from them would, on the one hand, spoil the pleasure of the reader, on the other, give as little idea of their beauty as the exhibition of a few stones could give of the architecture of a building. As a student of medicine, we never suspected Dr. Osler of the ability which he has shown in recent years, of profundity in diagnosing and suggesting treatment for the social ills of humanity. His interests and teaching seemed rigidly limited to physical problems, along pathologic and clinical medical lines. Perhaps the pragmatism of technical scientific investigation is the best basis for philosophic consideration of broader problems. At any rate, one finds in such essays as are before us, a more penetrating quality, and one feels a deeper sense of having received benefit than in the sermons and treatises of professional moralists, sociologists and clergies.

Annual Archaeologic Report, 1913, being part of the Appendix to the Report of the Minister of Education, Ontario. This is a copiously illustrated description of some of the material in the Ontario Provincial Museum, but the Director, Rowland B. Orr, and includes the second part of a monograph by Col. Geo. E. Laidlaw on Ontario Effigy Pipes in Stone, as well as various other interesting material of the same general nature.

Leben und Arbeit, Gedanken und Erfahrungen ueber Schaffen in der Medizin, W. A. Freund, published by Julius Springer, Berlin, 170 pages, portrait of author and 10 illustrations.

We appreciate the personal inscription of this work, in English. International friendships of this sort have an important practical bearing on the development of a common, world-wide, medical science. This autobiography is not only of historic interest, but, written at a period of full maturity of experience and before senility has advanced too far—the author being only 70—it possesses much value from the practical standpoint. Three things impress us, especially: the author's original studies of congenital and developmental or, at least, non-traumatic deformities of the thorax; his insistence on the paramount value of youth, both as the period for active labor and, by association and viewpoint, for the middle aged and old man; and the candid and practical resume of the favorable and unfavorable personal factors, in regard to ultimate professional success. These are, however, mere selections from the multitude of topics well worth serious attention.

Electricity in Diseases of the Eye, Ear, Nose and Throat,
W. Franklin Coleman, M. D., M. R. C. S., Chicago; published
by the Courier-Herald Press. 595 pages, 156 illustrations,
\$5.00.

Part 1, 82 pages, is devoted to general principles of electricity and radiant energy, description of apparatus, including a very suggestive chapter on the author's own equipment. This last, though brief and modest, is of much practical value as a guide to others and it is also to be commended for giving the critic a definite basis of judgment, just as in the citation of actual conditions attending any form of experimental work. Part 2, up to page 193, treats of the general therapeutic applications of various forms of electricity and radiant energy. The remaining parts deal specifically with the diseases and abnormal conditions of the various organs mentioned. Except for the systematic arrangement and avoidance of unnecessary details, the clinical method is followed. Indeed, one might almost say the legal method, for actual evidence is presented, both by reference to personal cases, and by an elaborate study of the literature, as shown by the extensive list of authors and journal references. While the general principles of electrotherapeutics are well established, to the best of our knowledge, no similar work has appeared applying so practically and completely with this specialty or group of specialties. It is a work which gives, not dogmatic opinions or inferences, but actual experience. On account of the definiteness with which methods are described, the possible error of the personal equation is eliminated so far as possible. For the same reason, the work

not only records present accomplishments, but will serve as a basis for future developments. We recommend it, therefore, not only to specialists in the lines mentioned, not only to those already particularly interested in electricity and the X-rays and other forms of radiant energy, but to all students and practitioners of medicine looking forward to perfection of such methods of treatment.

Providence Retreat, (Buffalo), 39th Report, for the year 1913.

This report, by the physician in charge, Dr. J. J. Twohey, contains an interesting summary of the work done at this excellent institution.

Traitement des Stenoses Aigues du Larynx, Dr. Guillermo Zorraquin, Chief of Clinic of Surgery at the Children's Hospital of Buenos Ayres; published by Vigot Freres, Paris. 45 pages, paper covers, 2 francs.

This work includes not only a surgical discussion of tracheotomy and intubation, but a study of the physiology and pathology of respiratory phenomena due to stenoses. Pneumograms, analogous to sphygmograms, illustrate the mechanic obstacle to free respiration, the abnormal curves showing sharp angles and a very perceptible series of interruptions, probably due to the influence of the circulatory wave, whereas the normal curve of pulmonic pressure is a slower, more gradual undulation, with less range of difference in pressure.

The Road to a Healthy Old Age, Essays, Lay and Medical, by Thomas Bodley Scott; published by Paul B. Hoeber, 69 East 59 st., N. Y. C. 104 pages, \$1.00.

As indicated, part of this work is intended rather as advice to the layman of advancing years, though the latter part of the book contains a considerable amount of scientific and practical medical information, without the expected generalizations at great length on arteriosclerosis. We note, for example, the use of hippurates to relieve high arterial tension, The relief of chronic bronchitis, with and without asthma, by appropriate vaccines, consideration of thyroid failures, some very suggestive remarks as to the transiency of therapeutic agents entirely foreign to the body, as the vegetable active principles, and the emphasis laid on the choice of mineral

drugs from the standpoint of foods, that is, to supply actual deficiencies in the animal chemistry.

First Aid Dentistry, E. P. R. Ryan, First Lieutenant, Dental Surgeon, U. S. A.; published by P. Plakiston's Son & Co., Philadelphia. 153 pages, 80 illustrations, \$1.25.

Years ago, the reviewer happened to be situated so as to have many night calls for emergency relief of conditions which, by day, would have sought a dentist. Many physicians are so situated that their work necessarily includes attention to the teeth and the old practice of merely pulling an offending organ is unwise, while a good many conditions require something more than extraction, even as an emergency measure. Dr. Ryan's book is not written specifically for the guidance of the physician forced to usurp the function of the dentist but is rather a work for the military dentist, under conditions of emergency. Yet it serves well, the former need. From personal experience, we realize how valuable such a book would have been to the young physician and, considering the circle of readers which we reach, it may be pardonable to emphasize this function of the book rather than its special usefulness to the dentists, civil or military.

Modern Surgery: General and Operative, by J. Chalmers DaCosta, M. D., Samuel D. Gross, Professor of Surgery, Jefferson Medical College, Philadelphia, Pa. Seventh Edition, Revised, Enlarged and Reset. Octavo of 1515 pages, with 1085 illustrations, some of them in colors. Philadelphia and London: W. B. Saunders Company, 1914. Cloth, \$6.00, net; Half Morocco, \$7.50, net.

It is scarcely necessary to review at length, a work so well known in its earlier editions. We are impressed with the fact that this work is not merely a description of operative technic but a treatise on surgery. The first quarter of the book is devoted to bacteriology, surgical pathology and the diseases commonly considered as essentially surgical, such as erysipelas, tetanus, syphilis, etc. The very practical discussion of antiseptic chemicals is especially to be commended. The philosophy of surgical disease is discussed so as to afford a good conception of causes, methods of prophylaxis and treatment, as well as of pathology. Anaesthesia, bandaging, skiagraphy, injuries by electricity, methods of controlling pain and inflammation, are among the subjects carefully and thoroughly

treated, and showing that the author has taken a broad and deep view of surgery.

Clinical Hematology: An Introduction to the Clinical Study of the so-called Blood Diseases and of Allied Disorders, by Gordon R. Ward, M. D.; Fellow of the Royal Society of Medicine, Medical Society of London, etc. Octavo of 394 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1914. Cloth, \$3.50, net.

A work on haematology without a colored plate of blood cells and malarial plasmodia, is a surprise in these days and while such charts are contained in other works or distributed as advertisements, and sometimes raise false hopes of what the inexpert haematologist may accomplish, we are rather dubious as to the wisdom of omitting them entirely. The cuts of red and white cells are scarcely adequate. In other words, the publishers in presenting an English work, have not fulfilled the American demand for copious and elaborate illustrations which they themselves have done as much as anyone to create. Considered, not as a picture book, but as one for serious reading, this is a work deserving careful and general study. The author lists, classifies, and describes 40 diseases. Cholaemia, haemophilia, purpura, cyanosis, methaemogloninaemia, intra-vascular cyto-phagocytosis are among the conditions not always included in works on haematology. The blood forming organs and the remote results of their lesions and disturbances, are thoroughly treated. In the chapter on the Blood in Various Diseases, a considerable amount of information as to leucocytes, secondary anaemia, effects of parasites and bacteria, etc., is brought together in systematic order. The book is not merely one on clinical diagnosis or even pathology, but, in addition, it is thoroughly clinical and pays great attention to therapeutics.

Psychanalysis: Its Theories and Practical Application, by A. A. Brill, Ph. B., M. D., Chief of Clinic of Psychiatry and Clinical Assistant in Neurology, Columbia University Medical School; Chief of the Neurological Department of the Bronx Hospital and Dispensary. Second Edition, thoroughly revised. Octavo of 393 pages. Philadelphia and London: W. B. Saunders Company, 1914. Cloth, \$3.00, net.

To one accustomed to deal rather with organic disease than functional disturbances and with functional disturbances

rather as expressions of concealed lesions or as conditions having only a slight relation to the conscious mind, the detailed discussion of history and subjective experiences, seems at first, somewhat exaggerated. It should be remembered, however, that there is a vast field of functional nervous disorders and of disturbances of mentality far short of insanity, which deserve the careful and minute analysis admittedly due to chemic and mechanic disturbances of visceral physiology and to the results of demonstrable lesions. Sex plays a large part in human thought. Whether it is so universally dominant as this book assumes, in interpreting dreams, imperative notions, habits of thought, etc., seems to us debatable. But, whatever one's own opinions may be, it must be admitted that there is a considerable number of unfortunate individuals, not sufficiently deranged to be confined in insane asylums, not criminal to the extent of being incarcerated, whose mental life is filthy, cruel, silly or otherwise abnormal. Many of these individuals are near the line the crossing of which means danger to others; many are conscientious enough to be constantly tortured by a realization of their own morbidity and are hampered by the diversion of mental energy into the repression of indecent and foolish impulses, which might otherwise be put to good advantage. The careful analysis of the psychology of such individuals, in many instances, suggests extrinsic causes that may be removed; in others, it shows the origin of an obsession in some trivial impression, perhaps dating back to childhood and the mere discovery of the origin and subsequent trend of abnormal thoughts, may help the patient who is sincere in his wish to be rid of them.

Infant Feeding, by Clifford G. Grulee, A. M., M. D., Assistant Professor of Pediatrics at Rush Medical College, Chief of Pediatric Staff, Cook County Hospital. Second Edition, thoroughly revised. Octavo of 314 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1914. Cloth, \$3.00, net.

That this book has come to a second edition within a year and a half, is an indication of its merit, and of the professional appreciation which we anticipated at the time of the review of the first edition. As the author states in the preface, there has been no revolutionary change of ideas of dietetics, but a number of advances have been made, which have been incorporated in the present edition. The work is systematic, comprehensive, practical, and the author is sensible and free from hobbies.

TOPICS OF PUBLIC INTEREST

Cost of Pasteurizing Milk. The U. S. Dept. of Agriculture estimates 3.13 mills per gallon, and about twice as much for cream. The "holder" process, 30 minutes at 135-145 is cheaper and more reliable than the "flash" process, 165 for a moment.

Lack of Room for Feeble Minded Children. The State Charities Aid Assn. (Homer Folks, Sec., 105 E. 22, N. Y.) reports the N. Y. City institution on Randall's Island as having 400 more inmates than the buildings were planned to accommodate; Rome and Craig Colonies overcrowded and with long waiting lists; Letchworth Village not completed. It is estimated that there are 32,000 feeble minded in the state, of whom 4900 are in institutions designed for their care, 5000 in reformatories and prisons. It is hoped that the legislature will appropriate \$300,000 to provide approximately 1000 beds, to relieve the immediate congestion. At the Rome State Custodial Asylum, the per capita cost is \$2.39 per week. The cost in boys' reformatories is \$4.66; in girls' \$5.47. Adequate provision for this defective class is not only a philanthropy which the state should undertake; it is an economy, both in the sense that the feeble minded can be cared for more cheaply on a large scale and that by proper direction they can be made more or less self-supporting, and in the sense that institutional control prevents crime and limits the tendency to propagation of a defective class. However, in view of the fact that taxation has already reached the point of being a heavy burden, care should be taken not to relieve individual families of responsibility in this direction, unless the circumstances justify such action.

Veto of Christian Science Bill. On April 24, Gov. Glynn vetoed the bill permitting Christian Scientists and other practitioners who do not use drugs to practice without medical examination. He stated that he believed that Christian Science healers should be allowed to practice among followers of this faith but that the bill was so broad in its terms as to open the gates to all sorts of medical pretenders. We certainly agree with Gov. Glynn that this bill should have been vetoed, and for the reasons stated. Drugs have played the main part in the practice of the healing art until recently; they are still an important item; we doubt very much whether essentially chemic disturbances of health can ever be successfully treated except by chemic means, in other words, by drugs. But, the abstention from the use of drugs in the practice of the healing

art, instead of demanding lower requirements, increases the standard of technical information and skill which the practitioner should possess. In any line of human activity, standards must be established and questions of fact and opinion settled by the best representatives of the majority engaged in that line. Drugless healers, pipeless plumbers, insurance companies that do not insure, automobilists that do not observe the majority opinion and the law regarding traffic, must all expect to be "persecuted."

Subscribers will please not stop their subscription and the board of censors are requested to be lenient but we are going to express the heterodox opinion that Gov. Glynn may be right in his contention that a bill allowing healers to practice among Christian Scientists, would be justified. We would except minors from such a provision, also persons of unsound mind or non compos mentis as the result of disease or injury, unless they had previously signified their willingness to abide by the results. But we are inclined to believe that the question of fact at issue between the medical profession and various other conservative persons, and the Christian Scientists, can be settled only by actual experience, that it is ultimately more humane to allow suffering and death from neglect of medical science, now, and on a scale sufficiently large to be instructive, than to force the reluctant to yield to the majority opinion by legislation and thus to give the opposing side the highly valuable logical argument of martyrdom. The medical profession has been openly charged with mercenary motives in its endeavors to protect the public health by requiring high standards of scientific efficiency and by excluding eccentric cults of single ideas from the management of physical ailments. This charge is absurd. If the intent of the profession were to force the laity into employing its services, the attempt at compulsion would defeat its own end and while treatment by charlatans and one-idea men reduces, immediately, the number of persons who would otherwise seek regular medical services, in the long run it increases the need for such services. We are almost ready to follow the slogan: "*Hic populus vult decipi; decipiatur in nomine Diaboli.*" This people wants to be taken in; in the Devil's name, let it be.

Pure Food Law. The Godfrey bill, signed by the Governor, makes dealers, restaurant and hotel keepers, equally responsible with manufacturers for the sale or serving of adulterated or misbranded food, false statement of manufacturer on a package being included as misbranding. At first thought, this might seem unjust but allowance would undoubtedly be made by any court, in the case of an innocent dealer, to whom

goods have been misrepresented. Usually, price, circumstances of sale, standing of manufacturers, etc., would prevent the deception of any wholesale purchaser who was not willing to be deceived. A plan of insurance against suits and fines might even be put into operation.

Expenses of Medical Society of the State of New York. Former President Campbell recently stated the principal expenses to be approximately as follows: legal defense, \$4,900; journal, \$4,400; directory, \$6,000.

Steuben County Tuberculosis Hospital. A committee has been appointed to select a site and prepare plans. Dr. E. E. Webster of Woodhull represents the medical profession.

Niagara County Tuberculosis Hospital. It is proposed to use the present county hospital near Lockport for tuberculosis patients, as soon as the new almshouse is finished. At present, 31 tuberculous patients are being cared for outside the county. There is some opposition to the plan proposed and, in turn, the supervisors are opposed to outside interference.

Nurses' Home and Maternity Hospital, have been recommended by the State Board of Charities for the Lockport City Hospital.

Free Antitoxin has been discontinued in Ashtabula, owing to the abuse of the charity by persons in good circumstances.

Reports of Death Due to Anti-Variolar and Anti-Typhoid Vaccination Incorrect. Press reports have stated that two Niagara Falls teachers died as the result of anti-variolar vaccination. The fact is that only one teacher died in that city during the past winter and her death was due to chronic nephritis—authority, Dr. Linsly R. Williams, Deputy Commissioner of Health. On page 648 of the May issue, we noted the death of a national guardsman, who was said to have died of typhoid, three weeks after a prophylactic inoculation. Aside from an error in name, the press notices should have stated that he died three months after inoculation and that the cause of death was malignant endocarditis and general sepsis. This case having been disposed of, we believe that there has been no case in American military surgical experience in which death from typhoid has occurred after inoculation. Foreign experience has, however, shown that inoculation is not an absolute preventive although the mortality from typhoid is much less than in the uninoculated.

Thermic Treatment for Gonorrhoea. On page 431, February issue, we noted the claim of priority by Dr. J. A. Fulton of Astoria. Lieut. Col. Charles E. Woodruff, of New Rochelle, writes that he used hot water irrigation in 1901, published the method in the Medical Record, and later found that Hoff of the U. S. Army had used the same method 20 years earlier.

Diphthongs. Some of our readers have asked why we cling to diphthongs instead of helping the cause of simplified spelling. Dr. Achilles Rose, in a recent letter, says in very courteous language and in approving spirit what may be interpreted to mean that this journal is the only one left that is a crank on the subject of medical nomenclature. Incidentally, he gives two illustrations of the reason for clinging to the original diphthongs: Anaesthesia means nudity and anaemia windiness. Paediatrics, clearly means the treatment of children. Pediatrics might be construed to mean a treatment by fetters or bandages, or by steering a case, or, with due allowance to the tendency to mix Latin and Greek, as a treatment of the feet and there is no question but that many persons do think that the term refers to the management of various forms of talipes and has been extended to include other deformities of growth and the management of children's diseases in general. But the real reason for preferring diphthongs is this: English is a very new and very mixed language. With due allowance for gradual development from its origins and for the relatively rapid and considerable changes that all modern languages have had forced on them by the necessity for new words to keep up with discoveries and inventions and by the tendency to mutual influence in the way of idioms, it may almost be said that English was constructed between 1350 and 1550. At any rate, English of the former date is almost unintelligible and that of the latter date merely quaint. Aside from the purely artificial languages, volapuk, esperanto, etc., there has never been such a rapid and extensive linguistic development anywhere in the world. English is spelled according to the original phonetic schemes of its several components and pronounced according to no single scheme. The only way in which it can be written phonetically, under present conditions, is by a complicated plan of silent, indicator letters and this plan is only approximately followed in actual practice. It has 12 clearly recognized vowel sounds and 5 letters to represent them. It has 22 clearly recognized consonant sounds. For five of these, arbitrary combinations of letters are required, one indeed, having no characteristic method of representation at all. There are only 10 consonant letters that can be reasonably assumed, if encountered in an unfamiliar word, to have a

definite sound. Under these circumstances, we feel that the attempt to patch up the English language and put it on a phonetic basis is hopeless. The only feasible method is the radical one of building up a new alphabet of at least 34 letters and cutting loose entirely from traditions, as is done in some systems of short hand. Under these conditions, we feel that spelling should be a matter of authority and of history, especially in the sense of showing the derivation of a word.

Safety First. Buffalo is placarded with Safety First signs and is having the usual number of automobile accidents of various kinds, the streets being still used as playgrounds. One trouble about fly swatting, cleaning-up weeks, safety first and various other campaigns is that they are so largely literary and oratoric. We endeavor to avoid poetry but the following hits the nail on the head:

The shades of night were falling fast
As through a crowded street, there passed
A truck of eighty odd horsepower
Which bore at thirty miles an hour
A banner labeled "SAFETY FIRST."

A Physician the Victim of Smallpox. Dr. W. J. Pirsh, of Fredonia is quarantined on account of a mild attack, of unknown origin.

Typhoid in Dunkirk. 26 cases were reported for March, 45 for April. Chlorid of lime has been employed since the early part of May, in treating the water.

Centenary of Birth of Dr. Edward Mott Moore. This will be celebrated in Rochester, July 15. The Park Board has contributed \$2,000 and the city is expected to erect a statue. This is a fitting honor to a great man, all the more significant of appreciation because of the lapse of time since his death. We had the pleasure and benefit of assisting Dr. Moore in 1888, as interne, were impressed with the success of methods antedating aseptic surgery and still more so with the progressive spirit which led this man, in his old age, after careful consideration, to adopt antiseptic methods.

State Board Statistics. The Journal of the A. M. A., May 23, gives its usual, exhaustive annual report. 6,435 physicians were examined in 1913, including 794 graduated in 1908 or earlier. Of recent graduates, 56.4% were examined in the

state in which they graduated, with 11.9% of failures. 18.6% failed in states other than the one of graduation. The general average of failures was 18.6%, 28.1% for graduates of 1908 and earlier, 16.5% for graduates between 1909 and 1913, 10.2% for graduates of 1913. Quantity sometimes implies quality; 12.6% failed of colleges having 100 or more examined; 37.5% of colleges having between 50 and 100 examined; 17.1% of still smaller colleges. There are 99 colleges in the United States now giving medical degrees, but only 65 recognized by 80% or more of individual state boards. 19 colleges are recognized by less than half the state boards. It is safe to say that in the near future, we shall have to deal with not over 80 colleges. Four states require two years' of collegiate work of graduates of the present year; three one year; 11 others will require one or two years, of such preliminary study applying to graduates in 1915 to 1919. New York is not in either of these lists and the example, broadly speaking, is set by the west for the east to follow. The whole report should be carefully studied.

Too Literal. The pessimistic articles on medical economics have brought forth a circular offering a job at \$15 per week.

Too Literal. Health Commissioner Fronczak, of Buffalo, is objecting to mitigation of quarantine rules by prominent physicians for prominent families. He ought to realize that certain noble principles of this land of equality were intended for the Fourth of July, the same as certain principles of religion and morality were intended for Sunday. The every-day application of such principles causes trouble.

Physician Convicted of Manslaughter. Dr. Martin E. Griffith of Monessen, Pa., has been convicted on account of the death of Wm. J. Robinson a music teacher (not the editor of the Critic and Guide), following cudaheyization.

Vivisection Reports. Dr. Walter B. Cannon, Chairman of the Bureau of the A. M. A. for the Protection of Medical Research, urges writers to make definite statements regarding anaesthesia, to prevent distortion of reports by antivivisectionists who, in the absence of such statements will consider the experience as cruel.

In this connection, we may allude to the trial of Dr. Joshua E. Sweet, of the University of Pennsylvania, who with five others, was indicted on a charge brought by the Women's Society for the Prevention of Cruelty to Animals. In one sense, this charge was an entirely proper one, since it waived

the entire matter of experiment in the direct way, and related to the care of animals, pending and following experiment. The case resulted in a disagreement and, so far as one can judge from the testimony, it was prejudiced, and without reasonable basis. But, granting that the charge was made in good faith, the general contention that all animals kept in captivity whether for the production of meat, wool, milk, etc., or for exhibition purposes, or as domestic pets, or in the interests of science and for therapeutic products, should be regularly fed and watered and otherwise humanely dealt with, is proper and reasonable.

Biologic Products Illustrated by Moving Pictures. The H. K. Mulford Company will have at the A. M. A. meeting at Atlantic City, an interesting exhibit of methods of preparing and using antitoxins, bacterins, vaccines, etc.

Harrison Anti-Narcotic Bill. Senator Knute Nelson offered an amendment which practically prohibited physicians, dentists and veterinarians from dispensing narcotic drugs and which prevented a physician from sending such a drug by messenger or ordering a nurse to administer it in his absence. Senator Nelson states that this amendment was offered at the request of C. H. Huhn, of Minneapolis, Secretary of the Minnesota Retail Druggists' Association. If true, this represents a little too close regard for the pharmacist's interests.

Ratio of Physicians. The new Polk Directory will contain, as did the issue of 1912, the names of upward of 140,000 physicians. This is for the U. S., including possessions and Canada, representing a population of about 108 million in 1910 and about 115 million at present. The general ratio is, therefore, about 1 physician to 820 population. For average states, the ratio is, of course, much lower but, with allowance for the number of retired and non-participating physicians included, is approximately 1 to 700.

Mortality Statistics of the United States.

(Bureau of the Census.)

Death Rate From Principle Causes. Tuberculosis markedly decreased, although it still causes a vast number of unnecessary deaths—90,360, or 149.5 per 100,000 in 1912, (10.8) of the total mortality. Next came organic diseases of the heart, with 86,179 deaths (adding endocarditis, they slightly exceeded tuberculosis), acute nephritis and Bright's disease (62,267), pneumonia (51,495), congenital debility and malformations (48,596), cerebral hemorrhage and softening (46,797), cancer (46,531), and

diarrhea and enteritis of infants under 2 years of age (42,482). There were 63,385 deaths from external causes, of which 49,755 were due to accident, 9,656 to suicide, and 3,954 to homicide. The suicide rate (16 per 100,000 population) was slightly lower than that for 1911 (16.2) and is the same as the average for 1906 to 1910.

Typhoid fever, with 9,987 deaths (16.5 per 1,000), showed a notable decrease from the preceding year (12,451) and a most gratifying reduction from the average rate for the five-year period 1901-1905 (32). In other words, it has been cut in half in the last decade, although our rate is still high as compared with some European countries.

SOCIETY MEETINGS

Brief reports and announcements of meetings of societies of Western New York, and those of general scope, are requested from Secretaries. Copy should be on hand the fifteenth of the month. Full transactions will be published at cost of composition.

The National Dental Association will meet in Rochester, N. Y., on July 7, 8, 9, 10, and papers will be read by the following members of the medical fraternity: Dr. Grover W. Wende of Buffalo, "Syphilis in Dentistry"; Dr. Victor C. Vaughn, of Ann Arbor, "The Functions of Dentistry and Medicine in Race Betterment," and Dr. Joseph C. Bloodgood, of Baltimore, "Early Recognition of Precancerous Lesions of the Mouth and Tongue."

The American Proctologic Society will meet at Atlantic City June 22 and 23, headquarters at the Chalfonte.

The American Gastro-Enterologic Association will meet on the same dates.

The American Society for Physicians' Study Travels will make its first annual tour, June 26 to July 16, starting from Atlantic City. Various entertainments, sight seeing and clinics will be held in Philadelphia on Saturday. On Sunday, June 28, there will be an excursion to League Island Navy Yard. On Monday, the Society will be entertained at White Haven Sanitarium. Tuesday, June 30, and Wednesday, July 1, will be spent at Buffalo, visiting the State Institution for Malignant Diseases and various local points of interest. From Buffalo, the Society goes to Niagara Falls, Toronto, Montreal, Quebec, Portland, Boston, Saranac Lake, Saratoga Springs,

Albany and thence by boat to New York, the last two days being devoted to clinics and research work.

At the time of writing, details for the Buffalo entertainment have not been completed. A number of automobiles will be needed for a trip about the city and physicians are requested to telephone offers to Dr. Charles G. Stockton or to the editor.

Rochester Academy of Medicine, Section 1 on General Medicine, etc., met May 14. Dr. G. Kirby Collier, Assistant Superintendent of Craig Colony gave a paper on the treatment of Epilepsy, the discussion being led by the Superintendent, Dr. W. T. Shanahan.

A special meeting of the Academy was held May 6, at the Genesee Valley Club, Dr. Joel E. Goldthwaite, of Boston, presenting a paper on "The Anatomic and Mechanistic Conception of Disease."

The Alumni Association of the Medical Department of the University of Buffalo held its annual meeting, June 2, 3, 4, 5. As the meeting occurred during the time that this issue was on the press, it was too late for an advance notice and too early for a report. The proceedings will, therefore, be published in the July issue.

The Western New York Homoeopathic Society held its 30th annual meeting in Buffalo, May 1, at the Homoeopathic Hospital. The banquet was held at the Hotel Statler in connection with the Western New York alumni of the New York Homoeopathic Medical College.

The Buffalo Academy of Medicine has held the following meetings since the last published report: April 28, Section of Surgery, Principles Underlying the Transplantation of Fascia, Tendon and Bone, Dr. Dean Lewis of Rush Medical College, Chicago. May 5, Section of Medicine, Something of Eugenics, Dr. H. W. Cowper; Diagnosis and Treatment of Diphtheria, Dr. W. S. Goodale, the latter discussed by Drs. H. C. Buswell, N. G. Russell and W. G. Bissell. May 12, Section of Obstetrics and Gynaecology, Treatment of Puerperal Infection, Dr. R. R. Huggins, of Pittsburgh. This was illustrated by lantern slides. The discussion opened by Dr. W. Mortimer Brown of Rochester and Dr. Irving W. Potter of Buffalo. May 19, Section of Pathology, Haemoptysis in Childhood with presentations of specimens, Dr. Carl G. Leo-Wolf, The Wassermann Test in the Municipal Laboratory and the interpretation to be placed on

results, Dr. Wm. G. Bissell. Discussion by Drs. Grover W. Wende, H. C. Buswell, and A. A. Thibaudeau.

The A. M. A. will meet at Atlantic City, June 22, 23, 24, 25, 26. For the program and other announcements, we refer to the Journal of the A. M. A. of May 16. We want to say a few words about railroad rates, however. With minor details differing for the geographic associations of railroads, the rate granted is two cents per mile, each way, with a time limit of June 20, 21, 22, going, and June 29, returning. This is the same for mileage books, the latter being good for a year but sold only by thousands or half thousands of miles. It is about the same as for a regular six-months excursion ticket. It is about seven dollars more for Buffalo physicians than the rate granted in 1900 or than the rate granted to pretty nearly every other body of men or for special excursions gotten up by the railroads themselves at various times. Taken in connection with the refusal of a special rate to the recent state convention in New York City, this action on the part of the railroads should arouse concerted and vigorous action on the part of the medical profession.

The Interurban Orthopedic Club met at Rochester, N. Y., May 1st and 2d, 1914. The program was as follows:

Specialism and the Common Good Dr. L. W. Jones

Remarks Concerning the Rochester Infants Summer Hospital Dr. Norris G. Orchard

Feeding in Chronic Arthritis Dr. Chas. R. Witherspoon

Metabolism and Disease Dr. C. Clyde Sutter

The Relations Between the Ductless Glands and Cancer Dr. Seelye W. Little

Claw Foot, Remarks on Birth Paralysis, Congenital Elevation of the Scapula, Scoliosis Dr. Howard L. Prince

1:30 P. M. Luncheon at the Genesee Valley Club

3:00 P. M. Taylor Instrument Company

Demonstration of the Electro-Cardiograph and Einthoven String Galvanometer Dr. Edward W. Jackson

4:30 P. M. Country Hospital for Crippled Children

Dr. Ralph R. Fitch

7:00 P. M. Dinner

Saturday, May 2, 10 o'clock, Rochester General Hospital
Demonstration of the New Coolidge X-Ray Tube

Prof. J. S. Shearer of Cornell University

A Case of Refracture of the Femur Dr. C. Wentworth Hoyt

Fractures About the Elbow Joint Dr. Myron B. Palmer

A Comparison Between the Wassermann and Noguchi Reactions Dr. Michael L. Casey

- A syringe for Intravenous Injection Dr. Joseph Roby
 Remarks on Transfusion Dr. Charles W. Hennington
 A Portable Gas-Pipe Traction Spica Frame
 A Modified Bradford Frame
 A Modified Goldthwait Frame
 The Hawley Operating Table
 A Means of Obtaining Traction in Cases of Marked Thigh
 Flexion, Associated with Extreme Deformity of Pott's
 Disease
 A Ball Bearing Roller Joint
 Arthrodesis of the Acromio-Clavicular Articulation
 Giant Cell Sarcoma
 Some Problems in Adult Backs Dr. Ralph R. Fitch
 1:30 P. M. Luncheon at the Rochester Country Club

The Medical Society of the County of Monroe held its annual meeting, May 19. Clinics were held in the morning as follows:

1. General Hospital. Medicine. 9 A. M.
 Dr. Joseph Roby in the medical wards on diagnostic and therapeutic procedures including Tuberculin Reactions, Schlick Diphtheria Reaction, Intravenous and Intraspinous Injections, Artificial Pneumothorax.
2. General Hospital. Surgery. 9 A. M.
 Dr. E. W. Mulligan in the operating rooms. Attendance limited in the order of reply post cards received. Dr. C. N. Jameson to demonstrate NO-O Anaesthesia.
3. General Hospital. Obstetrics. 10 A. M.
 Dr. W. M. Brown in the Hart Maternity Building, on Obstetrical Diagnosis, Abdominal Palpation and Pelvimetry.
4. General Hospital. Orthopedics. 10 A. M.
 Drs. Fitch and Prince on the fourth floor of West Hall on diagnosis of various orthopaedic conditions. Also, application of Abbott Jacket for correction of Lateral Curvature of Spine.
5. General Hospital. Roentgenology. 10 A. M.
 Dr. Palmer in the X-Ray Room on the second floor of the Administration Building, on the Gastro-Intestinal Tract.
6. General Hospital. Pathology. 10 A. M.
 By staff in the Laboratory on the second floor of the Administration Building, including especially, Drs. Boswell and Costello on Wasserman Reactions and Dr. Sutter on the Collodial Gold Reaction of Spinal Fluid.
7. General Hospital. Dermatology. 9 to 11 A. M.
 Dr. Roseboom in the Out-Patient Department.

8. General Hospital. Eye, Ear, Nose and Throat. 9 to 11.
Drs. L. W. Jones and A. G. Morris, and Drs. Ingersoll and McDowell, In Out-Patient Department.
9. St. Mary's Hospital. Surgery. 9 A. M.
Dr. O. E. Jones in the Operating Room.
10. St. Mary's Hospital. Orthopaedics and Roentgenology.
11 A. M.
Drs. L. A. Whitney and L. R. Cornman.
11. Park Avenue Hospital. Surgical Clinic. 9:30 A. M.
Dr. C. R. Barber
12. Municipal Hospital. Infectious Diseases. 11 A. M.
Dr. G. W. Goler.
13. State Hospital. Psychiatry. 10 A. M. By the Staff.
14. County Hospital. Chronic Diseases. 10 A. M.
Dr. L. J. Somers.
15. Iola Sanitarium. Tuberculosis. 10 A. M.
Drs. Leary and Brayton.
16. Rochester Public Health Association. Diagnosis of
Tuberculosis. 9 A. M.
Dr. Whipple.
17. Rochester Public Health Association. Dermatology. 10
A. M.
Dr. Landauer.
18. Rochester Public Health Association. Neurology. 11 A. M.
Dr. VanderBeek.
19. Open-Air School. 10 A. M.
Dr. Aikman. Inspection of the New Buildings on
Culver Road near the Widewaters. The Medical Phases
of the work.
20. On the Electro-Cardiograph. 10 A. M.
Dr. Jackson. A practical demonstration of the Elec-
tro Cardiographic Method in Heart Diagnosis at the
Taylor Brothers Co., on Ames Street, near West Avenue.

After luncheon at the Powers Hotel a business session was held and the following program was presented:

Practical Orthopaedic Points for the Guidance of the General Practitioner.

Dr. James Warren Sever, Instructor in Orthopaedic Surgery, Harvard Medical School.

Disturbances of the Internal Secretions.

Dr. Thomas McCrae, Professor of Medicine, Jefferson Medical College.

Discussion of Medical Economics and Ethics.

PERSONAL.

Announcement of removal, travel, and other matters of interest are requested. Please report errors in the listing of any physician in the State and other directories, that we may co-operate with the State Society in securing a correct list.

Dr. Clayton M. Brown, of Buffalo, announces the removal of his office and residence to 510 Delaware Avenue.

Dr. William T. Getman, of Buffalo, has moved his office to 469 Franklin Street, his residence will be at 428 Richmond Avenue.

Dr. Edward H. Mehl, who has recently returned from Vienna, will be associated with his brother, Dr. William M. Mehl, of Buffalo, at 71 East Genesee Street and will devote his attention to the eye, ear, nose and throat.

Dr. L. G. Hanley, of Buffalo, returned, the middle of May, from a tour through New England, and a visit to his alma mater, Yale University.

Dr. M. Axford, of Buffalo, has moved to 351 Lafayette Avenue.

Dr. W. H. Baker has moved his office from 203 D. S. Morgan Bldg. to Williamsville, his residence.

The following physicians have been appointed members of a local Committee of Arrangement for the 1915 meeting of the State Society: Drs. A. T. Lytle, Arthur G. Bennett, Edith R. Hatch, Lesser Kaufmann, Julius Richter, E. A. Sharp, Carl G. Leo-Wolf, and A. L. Benedict.

Dr. John Ragone, of Buffalo, has returned from Europe.

Dr. Carl G. Leo-Wolf, formerly of Niagara Falls, has returned from Europe and will be located at 481 Franklin Street, Buffalo, limiting his practice to Diseases of Children.

Dr. Prescott Le Breton, of Buffalo, has moved his residence to 15 Manchester Place.

Dr. George E. Musgrove, of Niagara Falls, Ont., has been nominated to the Provincial legislature, by the conservatives.

Dr. A. A. Thibaudeau, of Buffalo, has moved to 23 Irving place.

Dr. Thomas S. Blair, of Harrisburg, editor of the Medical Council, has just returned from an extensive western trip. On his way home he stopped in Buffalo and afforded us the opportunity of renewing an old friendship formed at the University of Michigan.

OBITUARY

Readers are requested to report promptly the death of all physicians in Western New York, or former residents of this region, or graduates of any medical school in Western New York, and to notify the families of the deceased of our desire to publish adequate obituary notices.

Dr. Frederick Llewellyn Hovey Lewis, New York Homoeopathic Medical College, 1865, died at his home in Rochester, April 12, aged 85. He was a Unitarian clergyman and was one of the founders of a colony in Massachusetts to carry out ideals of social life. He was said to have been the original of Laurie in "Little Women."

Dr. George Rite Kinne, Syracuse, 1876; died at his home in Syracuse, April 15, aged 60.

Dr. Harry F. Seaman, Geneva, 1871; died at his home in Alton N. Y., February 16, aged 71.

Dr. Vincent A. Baker, Syracuse, 1854; Eclectic Medical College of the City of New York, 1873; died at his home in Adrian, Mich., March 20, aged 82.

Dr. Charles W. Carrier, Buffalo, 1862; died at his home in Troy, Pa., March 24, aged 73.

Dr. James O. Emmett, New York Homoeopathic Medical College, 1867; died suddenly at his home in Fonthill, Ont., near Welland, April 30, aged 71. He had practiced in Fonthill throughout his active life.

Dr. William Caldwell, Victoria College of Cobourg, 1874; died at his home in Peterborough, Ont., February 8, aged 72. He devoted special attention to ophthalmology and oto-laryngology. He had been physician to the County Jail.

Dr. Sluman C. Crittenden, Philadelphia College of Medicine and Surgery, 1856; died in Detroit, April 28, aged 79. He was a surgeon of volunteers during the Civil War. He had practiced in Buffalo, Rochester and Batavia.

Dr. Newton Freeman Curtis, P. & S., 1874; died in Milton, Mass., April 30, aged 64. He was a practitioner of White Plains, N. Y. for many years.

Dr. Charles Auringer, Syracuse Eclectic (1850-1857) 1855, died at his home in Detroit, April 15, aged 87. For more than 30 years, he was associated with the Michigan Mutual Life Insurance Co.

Dr. Charles Francis Kiersted, Geneva, 1872; died at his home in Gillett, Pa., April 24, aged 69, of heart disease.

Dr. George S. Wyckoff, Buffalo, 1877; died in Pittsburgh, February 10, aged 63, of heart disease. He had practiced at Leechburg, Pa.

Dr. William H. Hawley, Eclectic, 1850; died at his home in Penn Yan, April 26, aged 89.

ABSTRACTS.

The Hormone Therapy and Constipation. Juan Raul Goyena, *La Semana Medica*, July 17, 1913, discusses the hormone theory and gives the histories of thirteen cases of constipation in which he has used Horomal. The word hormone is taken from the Greek (I excite) and as Bayliss and Starling have pointed out, the substances formed in the glands are taken up by the circulation and carried to certain organs, the functions of which they excite. In 1904 Enriquez and Hallion observed that if an extract of the duodenal mucosa is injected into an animal, the pancreatic secretion is excited and a stimulation of the peristaltic contractions results. In 1908 Zuelger, Dohm and Marxer discovered this substance in the stomach also. Later, they found the substance in the spleen which simplified greatly the work of procuring a sterile preparation. Horomal, is apparently carried to the spleen by the circulation and there stored.

It is prepared in sterile capsules of 20 C.C. each—this being the average dose for intravenous or intramuscular injection. In the latter case, Beta-eucaine is added to prevent pain. The indications for its administration—according to the author—

are clear. "In all cases in which the contractibility of the intestine is found paralyzed or abolished, it will be useful." It is most useful in acute paralysis of the bowel and in chronic constipation. To assist in cleaning the bowel of the impacted feces, he gives castor oil simultaneously with the first injection. The injections will probably have to be repeated, although it is claimed that a single injection will accomplish the desired result and that its action will persist for a considerable time.

A Case of Epleno-Medullary Leukemia Treated with Benzol.

Dr. Victor Fossati, *La Semana Medica*, September 11, 1913, reports the case of a girl, 22 years old, who for a year had noticed a swelling in her abdominal cavity which increased rapidly in size. She had periodical attacks of fever, intense pain in her left side, lost flesh and strength and became very anaemic. On examination, the spleen was found to be enormously enlarged, but there was no general hypertrophy.

Examination of the blood:

Red cells	2,000,000
Whites	240,000
Haemoglobin	37
Polys	45
Eosinophiles	3
Lymphocytes	35
Large mononuclears	8
Myelocytes	9

The treatment was started with iron and arsenic and X-Rays. No benefit accrued. On March 9th benzol in creatin coated capsules was given—20 drops a day—increased day by day to 70 drops. The general condition of the patient steadily improved. However the patient suffered greatly from gastrointestinal symptoms, due to the benzol, and its administration had to be stopped from time to time. The spleen showed no marked reduction in size.

Blood examination, October 6, 1913:

Red cells	3,000,000
Whites	56,000
Polys	59
Eosinophiles	1
Lymphocytes	30
Large mononuclears	3
Myelocytes	6

The pains have ceased, the appetite is good; the patient attends to her ordinary duties and continues to take the benzol.

Neo-Salvarsan and General Paralysis. J. Nin Posades, *La Semana Medica*, December 4, 1913, reports the case of a lawyer, 40 years old, married, who had syphilis of fifteen years standing that had been treated regularly by means of mercurial inunctions. Two years ago vertigo and digestive symptoms set in, also loss of memory, disturbances of speech, difficulty in writing, zones of anaesthesia appeared and epileptiform attacks. The patient lost all desire to work and appeared absolutely indifferent to his surroundings. He still retained an interest in the matter of dress for he filled his wardrobes with clothing and refused to wear any one article of apparel more than two or three times. But when he commenced attending the theater without having previously consulted his family, Dr. Posadas was called. He found tremor of the tongue and hands, diminution of the reflexes and cutaneous sensibility, unequal pupils and slow response and the Romberg pronounced. The patient was at times hysterical and at others indifferent. 3 grammes 30 centigrammes of neo-salvarsan were administered in all, in eight doses. The first two doses of 0.30 grammes—the remainder of 0.45 grammes, with the result that all symptoms save the inequality of the pupils disappeared. One year afterward, four additional injections of 0.45 grammes were given to make sure. The author does not state how the drug was administered, whether by intramuscular or intravenous route.

Dysentery Treated by Hydrochloride of Emetin. Juan Carlos Labat, *La Semana Medica*, August 4, 1913, reports the use of emetin in a case of dysentery which had been lasting 7 years and which had defied all treatment. During the last five months the patient had 20 bowel movements a day—blood and mucus—and was greatly emaciated. Then 0.05 grammes of emetin were injected. The day following, the patient had 9 movements. The next day the same amount of the drug was given and the movements reduced to five. The injections were continued every other day and a complete re-establishment of health resulted.

Benzol Treatment of Leukaemia. L. F. Barker and James H. Gibbes, *Bulletin of the Johns Hopkins Hospital*, December, 1913; have collected the following from the literature: Splenomyelogenic type, 13 cases; lymphatic type, 3; (also, 1 each of pseudoleukaemia and polycythaemia with splenic tumor) and add a case of the first type. The treatment resulted in a fall from 120 to 345 thousand to 6 to 13 thousand whites. As is well known, benzol is not entirely free from danger and the results may not be permanent.

Intestinal Obstruction. David M. Davis and Harold S. Morgan, Bulletin of the Johns Hopkins Hospital, February, 1914; review the literature and detail various experiments. The articles are not well adapted to abstracting but the authors conclude that the gravity of the condition is due largely to toxins and that these are not, as might be imagined, of bacterial origin, but rather due to some perverted action of the cells of the mucosa.

Hodgkin's Disease. Bunting and Yates, Archives of Int. Med., 1913, No. 12, have isolated, in three cases, a pure culture of a pleomorphic, diphtheroid organism. Previous descriptions of similar organisms have been made by Negri and Mieremet, also by Fraenkel and Munch.

Mode of Life More Important Than Sanitation. C. Hampton Jones, Assistant Health Officer of Baltimore, Dietetic and Hygienic Gazette, April, 1914; presents this heterodox view, basing his argument partly on the high morbidity and morality of negroes.

Blood Platelets. Gerald B. Webb, G. Burton Gilbert, and Leon Havens, of Cragmore Sanitarium, Colorado Medicine, January, 1914; allude to previous studies corroborated by others, showing that high altitude causes an increase of lymphocytes, known to be antagonistic to the tubercle bacillus, the polymorphonuclears diminishing. An increase in the plaques also occurs. From experiments on rabbits, they also conclude that the plaques are increased in carbon monoxid poisoning, hyperaemia of the marrow of long bones and in tuberculosis. Observations of human patients confirm the last, for all stages of tuberculosis of the lungs and they believe that the plaques are a source of opsonins.

Recurring Carcinoma of the Breast, Injections of Quinine Bisulphate Rendered Radio-Active by Roentgen Rays. Max Reichmann, of Chicago, Ill., Medical Journal, April, 1914. Healing of ulceration, freer movement of arm, disappearance of tumors were noted.

Fatal Extraction of Tooth. The Dublin Journal of Medical Science, April 1914, cites the case of a young man. Nitrous oxid was administered, but was not regarded as the cause of death. Artificial respiration was used in vain. Post mortem examination showed tuberculosis of upper cervical vertebrae and base of skull and fracture of the 4th cervical vertebra. The resulting spinal compression was considered as the cause

of death, fractures being predisposed to by the tuberculous disease.

Estimation of Amino Acids. P. J. Cammidge, *Lancet*, Nov. 8, 1913, states that the Malfatti method gives the ammonia plus amino-acid N, the Folin method, the ammonia N alone. Hence, by subtraction, the amino-acid N can be determined. In diabetes, the oxidation of amino-acids is interfered with.

Duplex Uterus and Bipartite Vagina. Geo. R. Smith of Mt. Vernon, N. Y., *Med. Jour.*, May 16, 1914, reports a case in a 4-para, discovered during an attempt at prophylactic abortion. The right cervix was virginal.

Undeveloped Female Sexual Organs, Coitus per Urethram. C. H. Johnson and Thomas S. Blair reports a case each, June and July issues, respectively, 1913, *Medical World*.

Direct Demonstration of Treponema Pallida in Brain of Paretic. Geo. W. Brock of Peoria, Ill. *Med. Jour.*, May, 1914, reports a case, using the Giemsa stain and refers to other cases in the literature.

Gall Stones: Diagnosis by X-Rays. Arial W. George and Isaac Gerber, *Boston M. & S. Jour.*, April 30, 1914, state that, owing to the tendency to deposits of calcium salts even on cholesterin stones, the majority of biliary calculi, especially those causing trouble, are diagnosticable by this method.

Dangers from Drugs purchased from Peddlers. Edward H. Marsh, *Medical Times*, April 14, 1914, discusses the recent death of seven inmates of the Los Angeles County Hospital, from salvarsan injections and ascribes it to poor quality of the drug. He also discusses the general proposition of purchasing drugs from unreliable sources. The persons who sold the "salvarsan" have refused to state its source. It is a safe rule when life is at stake, not to be too economic but to deal with reliable firms. And, a fairly safe rule as to reliability, is to deal with such firms as do not peddle their publicity from house to house by circulars but who maintain space that can be consulted as needed, in medical journals. Journal advertising is, of course, not a positive guarantee of reliability but it elicits criticism which, in the long run determines the survival of the fit.

Insect Bites. The Jour. of the N. A. R. D. recommends the following: To repel flies and other insects, Oil of sassafras, 1 part, oil of tar 2 parts, castor oil 5 parts. To relieve the pain and inflammatory reaction after insect bites occur, Oil of cloves 1, oil of lavender 1, balsam of fir 10, acetone 40, xylol 50, solution of formaldehyd 150.

Large Renal Calculi. A. Grave of Moscow, quoted by Int. Jour. of Surg., reports a woman aged 49, whose kidney was removed on account of the destruction due to two calculi. The larger weighed nearly 12 ounces. This is considered the record case in Russian medical literature but the author cites Shield's case, 18 ounces and Dontu's, 34 ounces.

Reduction of Infantile Mortality. W. H. Guilfooy, Registrar of Records in the N. Y. Dept. of Health, has prepared a pamphlet from the official statistics of the old city of N. Y., now the Boroughs of Manhattan and Bronx. In 1891, the population under five years was 188,703, the deaths 18,224. In 1913, the population was 333,595, the deaths 12,442. While the deaths have fluctuated somewhat, the first number is the maximum, the last the minimum of the entire series. The annual death rate has fallen from 96.5: 1000 children to 37.3. The deaths (likewise for children under five) in the summer months, June, July and August, range from the maximum of 6,612 in 1892 to the minimum of 3,261 in 1913. These deaths correspond to an annual mortality of 135.2: 1000 down to 38.8: 1000. Credit is given to the Nathan Strauss Pasteurized milk depots, instituted in 1892. Without wishing in any way to detract from the appreciation due to Mr. Strauss, we question whether the use of pasteurized milk has been the sole factor.

Crepitus not Necessarily a Sign of Fracture. De Lostalot, La Presse Med., cites an automobile accident with wound of the forearm and crepitus. X-ray showed no fracture of bone. Crepitus was due to a piece of glass impinging on bone. (Note Crepitus, though of a finer character, may also be due to inflammation in a tendon sheath).

Test for Arteriosclerosis. Hertzell, Berliner Klin. Woch., No. 6, 1913, places the patient in bed and shuts off the circulation in one arm and both legs. Normally, there will be an increase in blood pressure of only 5 millimeters. In arteriosclerosis, owing to inelasticity of arteries, it may amount to 60 or more.

Scarlatina Treated with Convalescent Serum. C. Rowe, Med. Klin., following the method of Reiss and Jungmann reported in 1912, claims good results.

Camphor as a Preservative of Urine. Jacob Rosenblum of Pittsburg, N. Y. Med. Jour., April 11, 1914, after reviewing the well known objections to chloroform, formaldehyd. thymol, etc., advises camphor, 1 gram for a 24-hour specimen.

Cotton a Source of Error in Wassermann Test. H. Langer, Deutsche Med. Woch., Feb. 5, 1914, has found that the fat-like bodies absorbed from cotton, may give a positive or anti-complementary reaction. (Note. We have published from time to time, various reports showing that the Wassermann test may have a plus minus error of approximately 30%. Pending a thorough review of the evidence, the conclusion seems to be justified that only distinctly positive or negative tests should be relied upon and that the test is not one to be trusted to an inexperienced observer simply following a laboratory manual).

Abderhalden Test. L. Michaelis and L. von Langermarck, Deutsche Med. Woch., Feb. 12, 1914, deny that the serum of pregnant women contains a specific ferment differing from that of the non-pregnant or even of man.

Short Alimentary Canal. I. O. Palefski of N. Y., N. Y. Med. Jour., April 18, 1914, reports a case in which the end of a 12-foot duodenal tube was passed through the anus after 48 hours. It could be drawn back and forth between the mouth and the anus, easily, only four feet remaining inside the body. Injecting the tube with bismuth emulsion, it could be seen by the X-rays, the large intestine showing the typic square with open base, a few undulations marking the small intestine.

Typhoid During Anti-Typhoid Vaccination. J. Ferrand and R. Coville, Gaz. des Hop., page 1607, 1913. Their routine consisted in giving four injections of Vincent's multivalent vaccine at intervals of eight days. One person developed typhoid after the second injection, during the negative phase, but the attack was not serious. They do not regard the vaccination as a cause of the typhoid, 40 persons having been vaccinated without such an occurrence, in the same series and they naturally are sceptic as to the importance of the negative phase.

Emetine in Haemoptysis. C. Flandin, quoted in the Prescriber, Jan., 1914, influenced by the reports of cessation of

intestinal haemorrhage in cases of dysentery and hepatic abscess treated by emetine, tried an injection of 4 centigrams in 1 c.c. of water, for haemoptysis, with good results and has continued this treatment in several cases. The haemoptysis is sometimes very promptly relieved. Usually even without recurrence of haemorrhage, the injection is repeated after 12 hours and daily for four doses. No untoward symptoms were noted.

Test for Glycoronic Acid. To 10 c.c. of urine, are added 2 c.c. of dilute sulphuric or phosphoric acid, 10 of grain alcohol, 20 of ether. Shake. Separate and evaporate the ether-alcohol extracts which contains the glycorunonic acid if present. Test the residue with orcin-naphtho-resorcin. O. Schweket, *Biochem. Zeitschrift*, No. 1 and 2, Vol. 55.

Hexamethylenamin. Paul Hanzlink, (Cleveland, Cleveland Med. Jour., Dec. 1913, insists that this drug is not directly antiseptic, that its action in this direction depends solely upon the liberation of formaldehyd, and that this can occur only in acid fluids, chiefly the urine and gastric juice. It should not be combined with alkalies and, if the urine is already alkaline, mono-sodium phosphate should be used. (Note ammonium benzoate usually renders the urine acid.) We append his lucid though necessarily technical description of true reaction.

The Diagnostic Significance of Calcium Elimination. Rodillon claims (*La Semaine Médicale*, September 10, 1913) that excessive elimination of calcium occurs in some diseases, notably tuberculosis, and the detection of this form of demineralization may be an early guide to the diagnosis of the infection before definite signs have developed.

The alkaline earthy bases of calcium and magnesium are eliminated chiefly by the intestines and the kidneys, and in negligible amounts by the skin, lungs, uterus and in the tears, saliva and semen.

To estimate the amount of calcium eliminated without estimating the amount ingested will of course give erroneous results. Vegetables are rich in calcium, whereas milk contains a relatively small amount and meat very little. Another important point to consider is that the vegetable salts are eliminated chiefly through the intestines while the calcium ingested with meat is eliminated through the kidneys. The explanation is found in the solubility of the substances of combustion. Meat metabolism gives rise to acids eliminated in the form of soluble acid phos-

phates; the vegetable proteids form alkaline bases and phosphoric acids which unite to form insoluble salts, bicalcic and tricalcic phosphates, which are not dialyzed and therefore expelled in the feces.

To obtain a fair estimate of the calcium eliminated it would be necessary to make a quantitative analysis of both the feces and urine. The former is troublesome and often impracticable, whereas the latter can be tested at the bedside of the patient. Rodillon suggests an exclusive meat diet before the test and gives a simple method for estimating the calcium in the urine.

The apparatus for the "calcium reaction" consists of a graduated, flat-bottomed glass cylinder, 15 millimeters in diameter; a dropper of 20 drops (of water) to the cubic centimeter; a white card on which has been traced in black ink a straight line 3 millimeters in cross-section. The reagent, oxalate solution, is made up of: Neutral ammonium oxalate, 3 gm., glacial acetic acid, 5 gm., and distilled water, 40 gm. In the actual test no other reagent is used, but to calibrate the cylinder, or calcimeter," a second solution is employed which is made up of: Calcium carbonate, 0.357 gm.; acetic acid, 1 gm., and distilled water to 1000 gm. Five c.c. each of the reagent and the calcium carbonate solution are poured into the cylinder, mixed thoroughly and allowed to stand for five minutes. The cylinder is then placed vertically over the black line on the card, and enough of the contents removed with the dropper to make the black line visible through the calcium oxalate precipitate. The amount is then read off on the tube and divided by 5 to get the constant. Thus: read off on the tube and divided by 5 to get the constant.

In testing the urine the calcium carbonate solution is replaced by the urine; the figure read off, say 3.2 c.c., is divided into the constant and the resultant constitutes the amount of calcium oxide in 1 liter of urine.

The normal amount for an adult on a mixed diet is from 0.35 to 0.5 gm. daily. If the figure rises to 0.7 on a mixed diet, 0.9 gm. on a meat diet, or 0.5 gm. on a vegetable diet, it indicates demineralization; and the condition is suspicious of tuberculosis.

OUR GRANDMOTHERS' HERB GARDEN

Old Fashioned Remedies and Their Uses.

Colds. A drink of hot Sage Tea on going to bed. Pennyroyal or Catnip can be used in place of Sage. Horehound, sweetened with Honey, to relieve a cough, or Garden Hyssop

will answer. A poultice of Hops and Ryemeal applied to the neck or chest. Thoroughwort and Ginger mixed, to remove all relics of a cold. Cider and Molasses, steeped with a pod or two of Red Peppers, and drunk hot.

Rheumatism. Wormwood, or Wormwood and Peppermint mixed. Red Peppers in Cider Vinegar.

Stitch in Side. A plaster of Pitch and Apple.

Neuralgia in the Thigh. A poultice of cold raw Carrots, pound or grate till smooth and soft.

Felons. A poultice of the root of Wild Evening Primrose, grate or pound to pulp, boil in milk or water, thicken with cracker, and apply hot.

Spring Medicine. A few chips of Black Birch inner bark, a few sprigs of Hemlock or Spruce, a handful of Checkerberry Root, a small root of Horseradish, some roots of Wild Sarsaparilla, some chips of White Pine, a small amount of the bark of Sassafras root, a handful of roots and leaves of Pipsissewa, the same of Pear Leaf Wintergreen and of Lettuce Liverwort. Brew in water, strain into jar, add water, sweeten with Molasses or Brown Sugar to taste. When cool, add a cup of Hop Yeast. Keep in warm place until fermented, then bottle and keep in cool place.

Cuts, Strains and Bruises. Fill pint bottle half full of buds of Balm of Gilead gathered in April, then fill bottle with New England Rum. Cork tightly. Collect the cotton bloom from Ament, and use as lint for cuts and bruises.

Black and Blue Spots. The root of Solomon's Seal, fresh and green.

Jaundice. Yellowdock and Barberry Bark, steeped in water and drunk before meals. Black, or Rum, Cherries preserved in spirits.

Ticdouloureux. A hot boiled Potato poultice, applied to the affected parts.

Sunburn. Green plantain leaves.

Loss of Sleep. A pillow of Hops, carefully dried so as not to lose the pollen, or a pillow of Life Everlasting Flowers gathered before frost.

Inflamed Eyes. Boiling water poured on the Pitch of Elder.

Earache. The core of a roasted Onion, applied hot.

Burns and Cracked Hands. Equal parts of Houseleek and green bark of Elder, simmered in milk and water till soft, strain to remove all dregs, add a part of fresh churned unsalted butter, a bit of bee's wax, simmer again until smooth, then place in a big mouthed bottle and set away for future use.

Nausea. Spearmint Tea, sweetened, and drunk hot.

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ORIGINAL ARTICLES

The right is reserved to decline papers not dealing with practical medical and surgical subjects, and such as might offend or fail to interest readers. Contributors are solely responsible for opinions, methods of expression and revision of proof.

Hemoptysis In Infants With Report of One Case.* (*)

By CARL G. LEO-WOLF, M. D.,
Of Buffalo, N. Y.

In the following lines I wish to report a case which I had the good fortune to observe at the Stefánia Children's Hospital in Budapest early this year, and which the director of this institution, Professor Dr. J. von Bókay, considered to be of sufficient interest to warrant its publication; and I am glad to have this opportunity to express to Prof. von Bókay my deep appreciation of the encouragement he has given me in my work, as well as for many a personal kindness conferred upon me.

Béla N., 11 months old, was received into the internal ward February 3rd, 1914, with the following history:

The child had been sick for one week; it had been languid, and in the beginning of its sickness it had several attacks of vomiting; since the day before it arrived at the hospital it had been unconscious and presented opisthotonus. No tubercular history in the patient's family. Immediately preceding the patient's reception into the Stefánia Hospital lumbar puncture had been performed at another children's hospital.

* Read before the Section of Pathology of the Buffalo Academy of Medicine, May 19th, 1914.

(*) From the Stefánia Children's Hospital Pediatric Clinic of the University of Budapest, Hungary (Prof. Dr. J. v. Bókay Director).

(In this connection I want to state that in Budapest lumbar puncture is performed systematically in the ambulatory service in all cases of meningitis (1) whatever their etiology, also in spasmophilia and in chronic hydrocephalus (2); I had occasion to see many of these cases during my two months stay there, and I have never seen any bad results from this procedure, but on the contrary I have seen a number of cases of diplococcus meningitis cured by it, and the records of the Stéfania Hospital show the recovery of two cases of tubercular meningitis with positive bacillary findings under this measure). (3).

To return to our case:

The status of the child at its reception into the hospital was as follows:

Weight 7800g.

Moderate rickets; caput quadratum, large fontanelle the size of a quarter dollar, thickening at the osteochondral lines, thickening of the epiphyses; the child has seven incisors.

Over the lungs nothing abnormal is to be detected by percussion, auscultation reveals a few râles.

Heart normal.

Abdomen retracted and no resistance can be felt.

Trousseau pronounced; pupils react readily; patellar reflexes exaggerated; the child lies without moving, the eyes are in fixation, there is rigidity of the neck.

Temperature 99.3.

February 4th: Temperature: 100.2 and 99.6; pulse 168, no change in the general condition; facial paralysis on the left side; at lumbar puncture about 15cc. of liquor is evacuated under moderate pressure in which fibrin coagulates on standing; cytological examination of it shows lymphocytes and several polynuclear leucocytes; a number of tubercle bacilli were also found; v. Pirquet reaction positive.

February 5th: Temperature 102.5 and 100.4, pulse 166; stadium paralyticum pronounced; **frequent bleeding from mouth and nose, the blood is bright red and foamy; tarry stools.**

February 6th: Temperature 104.0; frequent attacks of eclampsia; intermittant inspirations; Biot's respiration; death ensues at 10 a. m.

Post mortem was performed 24 hours after death by the prosector, Dr. F. Orsós, to whom I am greatly indebted for the anatomical report as well as the loan of the specimen.

I shall anticipate the anatomical diagnosis as I intend to go into details only as far as the lungs are concerned.

The post mortem diagnosis was:

Tubercular basilar meningitis with acute internal hydrocephalus of considerable amount; peribronchitis and caseous ulcerating pneumonia of the left upper lobe with rather small and confluent cavities; caseous breaking down of the bronchial lymphatic nodes which are in size up to that of an almond; bronchiectases; pulmonary hemorrhagia; acid pulmomalacia of the right upper lobe; disseminated tubercles of the spleen and liver; inanition.

The Left Lung is free from adhesions except at the hilus, where it is solidly adherent to the mediastinum owing to the caseous degeneration of the bronchial lymphnodes. Its pleura is in general smooth, only over the outer surface of the upper lobe do we find it thickened in some places. The whole upper lobe feels somewhat dense and in some spots nodular; almost everywhere do we see disseminated yellowish tubercles under the pleura. In the lower lobe we can see some subpleural tubercles only in the angular region.

The lungs were injected through the bronchi with formalin without any pressure after the method of Dr. Orsós, and were preserved in the same solution.

After fixation the whole left lung was divided by parallel frontal cuts into slices of the thickness of about 0.5 cm. The cut surfaces of the upper lobe now presented the following picture:

The lung tissue in general is thickened all through the upper lobe, it does not contain any air, is remarkably anemic, moderately translucent and juicy. In the regions of some of the lobules we find in this lung tissue which is translucent and infiltrated with a gelatinous substance an exceedingly fine punctation which corresponds to the alveoli in size and is bright yellow in color—a pneumonia desquamativa. One part of the apex corresponding in size to that of a walnut is almost normal and contains air.

On the surface of a cut made through the middle of the hilus we observe the following interesting picture:



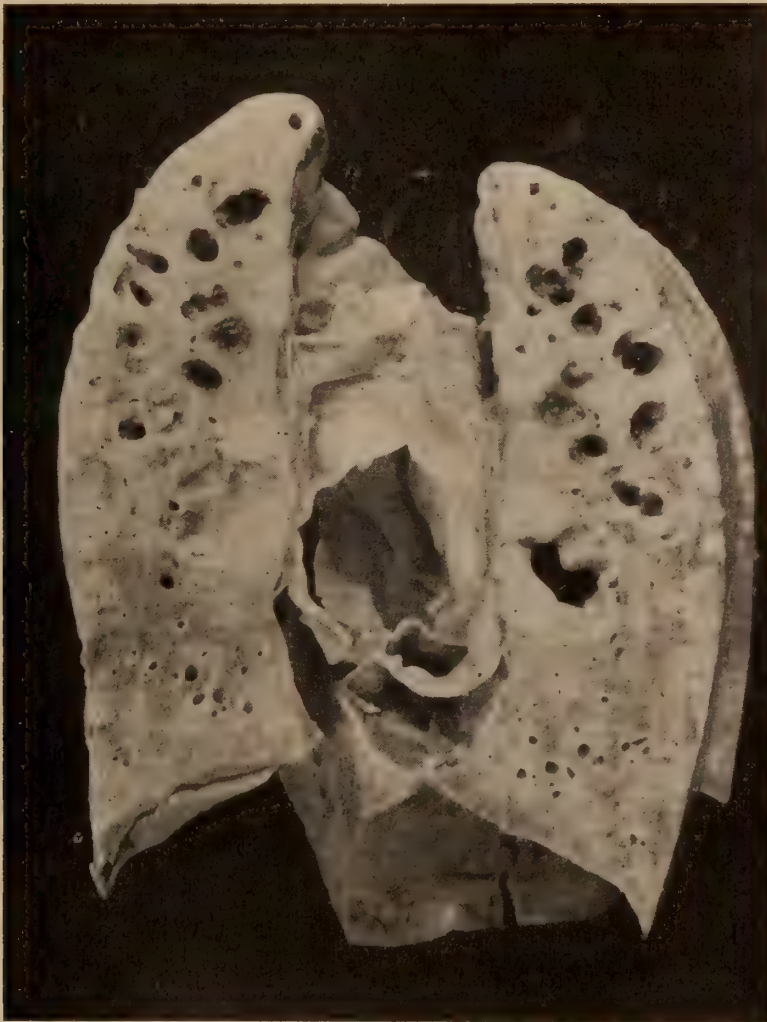
At the hilus we notice closely adjacent to the upper lobe a lymphnode, the cut surface of which is the size of a bean and which is entirely caseous. Between the branches of the blood vessels and the bronchial tubes, but seemingly inside the lung tissue, we perceive a second lymph node which is the size of a cherry pit, and a third one which is caseous and the size of a filbert. The two latter lymph nodes are surrounded by a fairly solid layer of connective tissue which contains the large blood vessels and the bronchial tubes which are compressed and therefore flattened.

In the center of the second lymph node, the one which is the size of a filbert, we see an isolated part which looks like a sequestrum and is the size of a pea, this is surrounded by a space which is filled with fairly fresh dark red blood, and its whole cut surface shows a pink imbibition.

In the lateral part of this lymphnode we find the main branch of the bronchus for the upper lobe, but this is compressed so that its lumen is a mere slit.

Where this lymph node and the bronchus lie close together we find in the outer layer of the lymph node as well as in the wall of the bronchus a discontinuity to the extent of two or three mm., so that the space surrounding the caseous sequester and the lumen of the bronchus communicate. The channel of this perforation, for this is what this is, is filled with a blood coagulum which contains a fine-grained detritus.

On the same cut surface we see in the center of the lobe the diameters of several bronchi the lumina of which have been enlarged by caseous degeneration.



In the anterior part of the lobe we find the other end of the lymph node which we described as being the size of a cherry pit in the cut we have just spoken of, but here it is much larger and is found to contain a focus of serous softening equal in size to that of a bean.

In the tissue of the lobe itself we find a number of cavernous bronchiectases which are either simple dilatations and have smooth walls, or are the results of caseation; some of these contain a little aspirated and coagulated blood. The infiltrated tissue between these bronchiectases contains numerous tubercles.

A very careful scrutiny of all cut surfaces reveals neither in the bronchi nor in the microscopical blood vessels any perforation except through the wall of the large bronchus.

In this case the hemoptysis was evidently due to an erosion of the blood vessels of the bronchial wall.

In the lower lobe of the left lung we find only a diffuse and quite recent thickening of some disseminated tubercles in the angular region; the whole lobe does, however, contain air and it is free from any older pathological changes.

The Right Lung showed only some recent softened spots which were caused by the aspiration of the gastric secretion, and further a moderate edema of the lower lobe.

The lymph nodes of the right hilus were also found to be in caseous degeneration.

In Both Lungs only a few disseminated lobules were found to contain a small amount of aspirated blood.

The Left Main Bronchus and the Trachea contained blood mixed with mucus.

In the Stomach were found about 50cc. of a mass consisting of blood mixed with mucus, and the same was found in the **Duodenum**.

I have given such a detailed description of this case for two reasons:

First, because the bronchietases are so extensive that we can hardly regard these as a secondary condition, but we must consider these to be the primary affection which has also, most likely, furnished the disposition for the tubercular infection; we see here a localization and a picture of the origin of tuberculosis in an infant such as we are accustomed to find it in adults only.

My **Second** and principal reason for publishing this case is the rare occurrence of hemoptoe in children and especially in infants which is conceded by all writers on this subject.

Let me quote briefly from some of the text books:

Barthez and Rilliett (4) have seen some cases of hemoptysis in tubercular children, this was almost always terminal and very copious.

Biedert (5) says: Hemoptysis is very rare in childhood, especially in young children, though it may occur in very young children. The youngest children on record to die from hemoptysis were one a little over one year old reported by Wyss (6) in 1878, and one of 20 months reported by Steffen (7) in 1869.

Brown (8) states that hemoptysis may be said to be infrequent in children under 10. Certainly it is very rare at the onset. It is usually small in amount. The terminal hemoptysis

common in the adult, but rare in children, results from the rupture of an aneurism in a small cavity or the erosion of a branch of the pulmonary artery.

Cornet (9) writes that age plays an important part in the occurrence of hemoptoe, inasmuch as it is rare in subjects before puberty, especially before the second dentition.

Dennig (10) states that hemorrhages in considerable amounts, such as we observe these so frequently in adults, are very rare in childhood; he has not been able to find a single case in the records of his institution.

D'Espine and Picot (11) remark that hemoptoe is usually absent in children.

According to Finkelstein (12) hemoptoe is exceedingly rare in infancy.

In Hennig (13) we find that tubercular children do not spit up or cough up blood in the beginning of the disease, the same as do adults, but a severe hemoptoe may come at the end.

Henoch (14) found hemoptysis rare in children before the second dentition, though he will not go as far as Rilliet and Barthez who had stated that they had never seen it occur before the sixth year. He had seen blood in the sputa of at least a dozen children under five, but only in three of these in considerable amounts.

Holt (15) has personally never met with a case of hemoptysis under five years, and he declares it to be a rare symptom, but not unknown even in young children. He quotes: "Herz in 247 clinical cases of tuberculosis in children records 8 of hemoptysis, four of them under five years, and the youngest only eighteen months old. The records of 131 autopsies on tuberculous children in the Pendlebury Hospital show that hemoptysis was found four times a cause of death; two of these patients were under five years, and one was only twelve months old."

Hutinel (16) writes: Hemoptysis is rare in the early period of life, those cases which were reported were mostly terminal and profuse ones, and were due to changes in a large branche of the pulmonary artery caused by ulcerations from lymph nodes. The blood may come from other organs, such as the nose, pharynx, larynx, and even the ear. When it is surely proven that the blood came from the lungs, then one should remember that Trousseau has observed hemoptysis in pertussis, Bouchut (38) in pneumonia, Rilliet and Barthez in pulmonary gangrene. Mantel (52) has called attention to the fact that slight hemorrhages may be overlooked because the blood is swallowed.

v. Huttenbrenner (17) remarks: Hemorrhages from the lungs are very rarely observed in childhood in spite of the

frequency of the destructive processes in phthisis; but if they should occur, they will be quite profuse.

Jacobi (18) out of his large experience does not remember more than half a dozen cases in children, except those which took place in violent attacks of whooping cough. Only one of his cases of hemoptoe in phthisis was three years old. Blood is not a frequent admixture in the expectoration of phthisical children; now and then it is met with, but profuse hemorrhages are rare in children.

Koplik (19) says: Hemoptysis is very rare in infants. He has seen, however, several cases in children of more than six years of age.

V. Pirquet (20) writes that hemoptoe, which is frequently the first sign of phthisis in adults, is very rare in children.

Rotch (21) finds hemoptysis rare in infants and in young children.

Steiner (22) makes the same statement and quotes one case of his own observation in a child of three years of age.

Sticker (23) states that hemoptoe before the seventh year is almost unheard of, but from the literature may be collected a number of such cases in early life.

Thomson (24) remarks that hemoptoe is comparatively rare in childhood. It does not occur, as in adults, as an early symptom of pulmonary phthisis, and is only rarely met with in the late stages of the disease.

Unger (25) writes that in children the sputa are only rarely streaked with blood; still rarer are hemoptoe or profuse hemorrhages.

West (26) observed almost always absence of hemoptysis in the beginning of phthisis in children, and relatively rarely in its course.

Young (27) remarks: Hemoptysis may occur in the form of streaking; but profuse hemorrhage, though it does occur, is extremely rare.

Zuber (28) speaks only of the profuse hemorrhages due to rupture of an aneurism, which were first described by Rasmussen (29), or to the rupture of one of the vascular bridges which are found to traverse the cavities in children.

Other writers of text books on diseases of children whom I have consulted, either do not mention hemoptysis or only quote a few cases of their own experience, or recite again those described by others.

Hinz (30) gives a careful description of a case of hemoptysis in an infant of twelve weeks together with the report of the obduction; he also quotes 44 other cases which he has collected from the literature. I shall give in my Bibliography appended to this paper the different authors who have pub-

lished cases of hemoptoe in children, most of whom are quoted by Hinz, but I have tried wherever possible to complete his data so as to make it easier in the future to find these. (31 to 62).

Undoubtedly other cases of hemoptoe in children may be found in the literature, such as those reported by Ausset (63), Bierbaum (64), Gangoux et Maillet (65), but I trust that I have adduced sufficient proof of the comparative rarity of this condition in children and especially in infants.

To recapitulate: We find the most interesting points in this case to be the congenital bronchiectases which most likely caused in this case a form of tuberculosis not usually found in children; further that the extensive tuberculosis of the left upper lobe and the considerable tuberculosis of the bronchial lymph nodes gave rise to hardly any symptoms during life, though they were naturally obscured by the meningeal symptoms; and finally the profuse hemoptysis which, as we were able to prove, came from the perforation of a caseous hilus gland into a bronchus of the first degree.

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"The Wasserman Test in the Municipal Laboratory and the interpretation to be placed upon results."

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In presenting the subject under the title given it will be the effort of the writer to do so in a manner that will not only be of assistance to the general practitioner in understanding the limitations of this class of laboratory investigation, but also explain some of the difficulties that will unquestionably arise with other municipal laboratories contemplating an introduction of the test as a routine procedure.

As a rule city laboratories have little opportunity to observe the clinical pictures presented by those furnishing the material for tests and it is generally recognized that laboratory investigations to be of any great amount of value should be in accordance with clinical observations. With the complement fixation test for Syphilis, or as it has been popularly termed, "The Wassermann Test," many features present themselves which are most complicated in character, and as the test is not one of absolute specificity, the Laboratory results will frequently mislead the general practitioner, providing he is not thoroughly familiar with their interpretations. When it was definitely decided to introduce the test as a routine procedure in the work of the Laboratory of the Department of Health, Buffalo, N. Y., a most careful and thorough investigation was started to ascertain the features necessary to care for a large number of samples, using a system that would be practical in its application and reliable in results. The system originally adopted by Wassermann (4) was studied and compared with such modification as recommended by Noguchi (5) Hecht & Fleming (11) Simon (3) Citron (4) Meier (4) Porges & Meier (2) Landsteiner (4) (2) Muller & Potzi (4) Weidanz (4) and Craig (12) (8) (7). It was found that the method of Craig's was decidedly more adaptable for Municipal Laboratory use in that it WAS RELIABLE, and afforded advantages which the writer will endeavor to describe.

Before understanding a description of the "Wassermann Test," it will be necessary to explain the meaning of certain technical terms used to designate the ingredients employed and the reactions obtained.

First on the list is the word COMPLEMENT introduced by Ehrlich. It is a substance present in nearly all freshly drawn blood serum and has the peculiar property of gradually changing after the collection of the serum and can be completely destroyed (thermolabile) by heating the serum to a temperature between 55 and 56 degrees centigrade for one half hour. For laboratory purposes it has been found that complement contained in the serum from the blood of the guinea pig, and about 15 hours old, is the most serviceable.

The term AMBOCEPTOR likewise introduced by Ehrlich is another principal found in the serum of the blood of many animals and can be artificially produced in the serum of certain animals by the injecting of various substances. Amboceptor (Haemolytic Amboceptor) used in the "Wassermann Test" is produced artificially in the serum of an animal—usually the rabbit—by injecting washed blood corpuscles from another specie of animal blood. Repeated injections of these corpuscles develops the amboceptor properties in the serum of the rabbit so treated.

WASHED BLOOD CORPUSCLES. This is merely collecting definite qualities of blood in a solution of Citrate of Soda and the after sedimenting of the corpuscles by centrifugal force, repeatedly suspending the corpuscles in a normal salt solution and continued recentrifugation until all the serum from the blood has been removed. Washed blood corpuscles are not only used for the production of the amboceptor qualities in the serum of the rabbit, but also to determine the reaction known as HAEMOLYSIS.

HAEMOLYSIS. It has been known for a considerable period of time that if washed blood corpuscles, complement, and the amboceptor (produced by injecting the same variety of washed corpuscles as used in the mixture) be placed together in definite proportions in normal salt solution and incubated at the body temperature, that the corpuscles will become disintegrated, liberating the Haemoglobin contained in their composition and imparting the color to the salt solution. This process of disintegration of red blood cells, through the action of complement and amboceptor is known as Haemolysis, and its employment as a reactive feature in the "Wasserman Test" for Syphilis constitutes "The Haemolytic System" of

the test. In general application there are several varieties of this system all named after the specie of animal from which the blood corpuscles are obtained, and the term "anti" prefixed to the name of the animal to designate the variety of the system. For example if sheep's blood corpuscles are employed and are used for injection into the rabbit the amboceptor obtained is anti-sheep amboceptor and the Haemolytic System is the anti-sheep system. Again, if human blood corpuscles are used to determine the haemolytic reaction they must be employed to produce the amboceptor, and the system is known as the anti-human Haemolytic system.

ANTIGEN. An Antigen is any substance capable of producing an immune body by its introduction into an animal. These immune bodies are called anti bodies, and the use of the term Antigen in the complement fixation test for Syphilis means a substance containing materials that when brought in contact with anti bodies in the serum from syphilitic sources will have a reactive influence.

As regards the origin of the complement fixation test, Bordet & Gengou (2) demonstrated that if the blood serum of an animal rendered immune by the injection of a certain substance, was added to a mixture of that certain substance, in the presence of complement, and then incubated at the body temperature, a definite change took place, as shown by the fact that if washed blood cells and amboceptor of the same Haemolytic System as the cells were added to the mixture, and this mixture reincubated, the blood corpuscles did not dissolve (Haemolysize), or in other words there was **inhibition of Haemolysis**. It is explained that on account of the specific nature contained in the blood serum tested to the antigen used, that the complement added, **is fixed**, and as free complement is always necessary to produce the dissolving of the blood corpuscles with the corresponding Amboceptor, Haemolysis does not occur. It is this principle in the Bordet & Gengou phenomena, that Wassermann employed in determining the presence or absence of syphilitic infection in human blood.

Before describing the system in use in the Laboratory of the Department of Health of Buffalo, it may be of interest to relate some of the incidents experienced during a process of evolution, in determining what system was best to employ. After becoming thoroughly familiar with the technique in the complement fixation test, the writer visited many of the larger laboratories of the country and was impressed with the great variance in methods used. In almost each instance the particular laboratory visited was either using an entirely different

system from that originated by Wasserman or modifications in the system, and hardly any two laboratories were working exactly alike. Duplicate samples of blood submitted to the different laboratories most frequently gave widely different results. It was not until the writer became acquainted with the system in use by Craig & Nichols at the Army Medical School that any uniformity of results was observed. Permission was obtained to work in the Laboratory of the Army Medical School under the immediate direction of Craig and as a result it has been possible to adopt a system for Municipal Laboratories, which has not only proven reliable so far as our present knowledge of the "Wassermann Test," but capable of caring for large numbers of samples of blood.

As regards the collection of samples, the greatest care must be exercised in a Municipal System and a circular letter pertaining to this feature was mailed to the physicians of Buffalo. The letter read as follows:

"Beginning with the new year, the laboratory of the Health Department will perform the "Wassermann" blood test for the physicians of the City, free of charge, providing the person from whom the blood is collected resides within the City of Buffalo.

It must be remembered that this test, which is most complicated in character, depends upon many features for its reliability, aside from the skill with which it is conducted in the laboratory, and unless these features are observed, will furnish results misleading in their interpretation.

To secure satisfactory results, it is of the utmost importance that the blood furnished be collected with the greatest care, following absolutely the directions outlined in the circular accompanying each outfit. The outfit that will be used consists of two sterilized Wright's tubes enclosed in an envelope which in turn is encased in an outside covering containing a circular of directions and a card for record. The outfits can be obtained only at the Health Department and after use must be delivered to the same place.

In warming and sealing the tubes, the greatest care must be exercised not to heat the blood. In order to have the test of practical value to the physician, certain features must be observed.

It is absolutely essential that the use of a Bunsen gas burner is available, as it is difficult to properly seal the Wright tube in any other manner. The samples of blood should not be

taken within two hours after the ingestion of a meal, or if the person has indulged in any kind of an alcoholic beverage within a period of forty-eight (48) hours. The surface of the ear must be perfectly clean to avoid unnecessary bacterial contamination and free from all moisture, as the presence of moisture renders the blood unsuitable for a reliable test. In cleaning the ear, antiseptics should not be used. After collecting the blood, the process of sealing the tubes must be carefully followed.

The Wasserman test will be performed Tuesday of each week after January 1st, 1914, and the results sent to the physicians by mail.

Used outfits must be received at the Health Department not later than Monday evening to insure their being included in the weekly test.

It must be remembered that the Wassermann Reaction is to be considered an accessory in aiding the diagnosis. There are diseases which give blood tests similar to that of Syphilis—among these being Yaws (90%) Leprosy (50%) Malaria (febrile stage % ?), Pityriasis rosea (few cases reported), Carcinoma (especially involving the nervous system), Scarlet Fever (eruptive stage % ?) and possibly some cases of Tuberculosis. Treatment also influences the reaction.

It can be understood that the practical value of the test depends as much upon the care with which the blood is collected and the interpretation placed upon results, as the actual procedures in the laboratory."

There are many features that the clinician must constantly keep in mind prominent among them being the fact that it has been unquestionably proven (13) that blood serum from undoubted syphilitic patients that are not undergoing any treatment will vary in its powers to react by the complement fixation test and this variance may range anywhere from a negative reaction to a strongly double plus within a period of a few days.

It must likewise be remembered that the blood of persons giving a negative result may react strongly double plus after receiving a treatment with salvarsan providing the case is one of syphilis. (7 page 28).

The circular of directions accompanying each outfit reads as follows:

**DIRECTIONS FOR COLLECTING BLOOD FOR
THE WASSERMAN TEST**



“A”

DEPARTMENT OF HEALTH
Francis E. Fronczak, Health Commissioner
Buffalo, N. Y.

To secure satisfactory results, it is of the utmost importance that the blood furnished the laboratory be collected with the greatest care, following absolutely the directions outlined in this circular.

The best location for the blood collection is from the lobe of the right ear, and the manner of holding the Wright tube and the ear are shown in illustration "A." The procedure is as follows:

- A. The lobe of the ear should be clean, carefully washed with ether and allowed to dry.
- B. The ear is rubbed with a clean, dry towel until it is decidedly hyperemic.
- C. Puncture the rim of the lobe with a fair size triangular needle.
- D. The Wright tube is held nearly horizontally in the right hand, with the curved end toward the ear and slightly lower than the punctured lobe.
- E. Three fingers of the left hand should be in front of the ear and opposite the thumb which is behind the lobe.
- F. The ear is squeezed between the second finger of the right hand and the fingers and thumb of the left hand.
- G. Press the ear between these fingers and thumb, but do not pull downward.
- H. The pressure upon the ear should be relaxed after obtaining each drop of blood so as to permit the capillaries to refill.
- I. As each drop of blood comes to the surface, it should be collected in the curved end of the Wright tube.
- J. When the tube is one-half to three-quarters full, the procedures as shown in illustration "B" must be carefully followed. Use both tubes.
- K. In warming and sealing the tubes, great care must be exercised not to heat the blood. The use of a Bunsen gas burner is essential, as the sealing of the Wright tubes is difficult to accomplish in any other manner.

The following features must be observed in order to obtain reliable results:

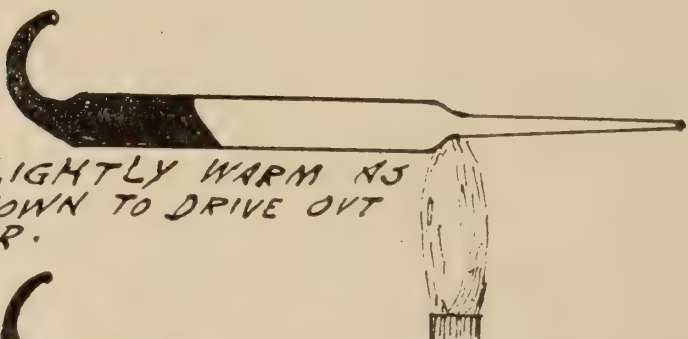
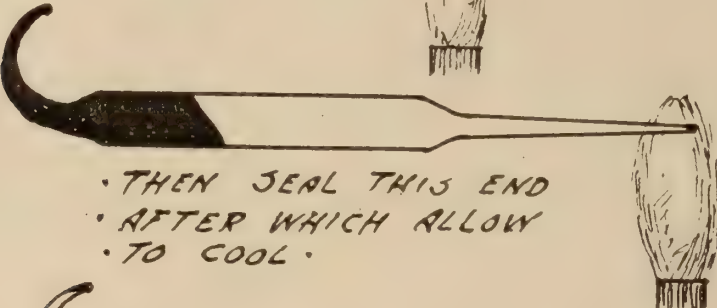
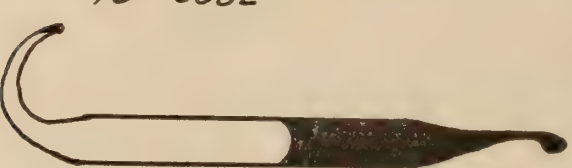
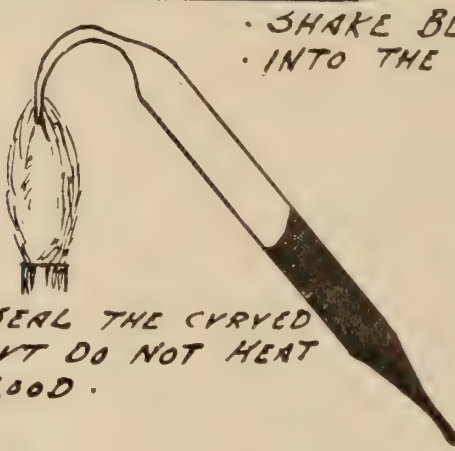
1. Do not collect the blood within two hours after having a meal, or if the patient has indulged in any kind of an alcoholic beverage within a period of forty-eight hours.

2. The surface of the ear must be perfectly clean and free from all moisture. In cleaning the ear, do not use antiseptics.

BUREAU OF BACTERIOLOGY

William G. Bissell, M. D., Bacteriologist

CARE OF WRIGHT TUBES AFTER THE BLOOD HAS BEEN COLLECTED.

- ① 
 - SLIGHTLY WARM AS SHOWN TO DRIVE OUT AIR.
- ② 
 - THEN SEAL THIS END AFTER WHICH ALLOW TO COOL.
- ③ 
 - SHAKE BLOOD DOWN INTO THE SEALED END.
- ④ 
 - THEN SEAL THE CURVED END. BUT DO NOT HEAT THE BLOOD.
- ⑤ 
 - ALLOW THE SEALED END TO COOL.
 - REPLACE IN PACKAGE AND SEND TO LABORATORY.

3. After collecting the blood, be sure to seal the tubes, as shown in illustration "B," and send them as soon as convenient direct to the Health Department.

The Wasserman test will be performed Tuesday of each week and the results mailed as soon as possible. The used outfits must be received at the Health Department not later than Monday evening of each week to insure their being included in the test. The blanks accompanying the outfits must be completely filled out.

When the samples are received at the Laboratory the tubes containing the blood are centrifugated and placed in a paraffine bath between 55 and 56 degrees centigrade for thirty minutes. The object of these measures is to obtain a clear serum, and to destroy (inactivate) the presence of any possible complement that might be contained in the human blood serum. The test then proceeds as follows: Test tube racks having a double row of holes are used for the reception of specially designed small test tubes and there is placed in each tube nine tenths of a C. C. of steril normal salt solution. In both rows of tubes there is placed four capillary drops of the serum to be tested, and the mixture is thoroughly shaken. There is placed in both rows of tubes two units of complement, and in the front row, one unit of the syphilitic antigen. The mixtures are again thoroughly shaken and incubated in a water bath at a temperature of 37 degrees centigrade, for thirty minutes. All tubes are reshaken once during this period of incubation. The racks holding the tubes are then removed and there is added to each tube one tenth of a C. C. of a ten per cent. suspension of washed human red corpuscles in steril normal salt solution and two units of an anti-human amboceptor. The mixtures in all tubes are again shaken and re-incubated, this time for a period of one hour, shaking during intervals of every fifteen minutes. At the completion of this period the racks containing the tubes are placed in an ice box and the results read after three hours exposure to the cooler temperature.

The designations used in the Health Department Laboratory of Buffalo are those suggested by Noguchi (5) and adopted by Craig (12) and as follows:

Double Plus meaning complete inhibition of Haemolysis.

Plus meaning that fifty per cent. of the red blood corpuscles have been disintergrated with a corresponding color resulting in the fluid.

Plus Minus meaning any grade of further disintegration of red blood corpuscles and color up to that of **Minus** which is a complete disintegration of the corpuscles and a blood red shade.

Before considering the significance to be attached to the various grades of reactions the methods by which the Syphilitic Antigen, the Complement and Haemolytic Amboceptor are obtained will be given.

Syphilitic Antigen

A variety of methods have been thoroughly studied and the writer believes that antigens made from the tissues from syphilitic sources are more stable and are preferable to any others yet suggested. The method used at the present time is that recommended by Walker & Swift (10) with the exception that the antigenic extract is obtained from the hearts of persons dying of Paresis. (It being considered that Paresis is due to Syphilis.) In other respects the method as published in the *Journal of Experimental Medicine* Volume XVIII No. 1 is followed. Antigens remain active much longer when kept at the room temperature. In the titrations of the antigens the methods as recommended by Craig (12) are adhered to. These methods, in addition to determining the actual antigenic strength, show whether the antigen in itself is haemolytic or contains anti-complementary properties, or both. The tables for titration are as follows:

Titration of Antigen for Haemolytic Properties

(The antigen is diluted by adding 1 part to 9 parts normal salt solution.)

Tube No.	Amount of salt solution.	Units of complement (50% dilution)	Amount of antigen emulsion 1 to 9 dil.	Amount of blood suspension 10%
1	0.9 c.c.	2 units	0.05 c.c.	0.1 c.c.
2	0.9 c.c.	2 units	0.10 c.c.	0.1 c.c.
3	0.9 c.c.	2 units	0.15 c.c.	0.1 c.c.
4	0.9 c.c.	2 units	0.20 c.c.	0.1 c.c.
5	0.9 c.c.	2 units	None	0.1 c.c.

Incubate in water bath at 37 degrees C for one hour, shaking every fifteen minutes.

None of the tubes show haemolysis. If haemolysis is pres-

ent in all, including Tube No. 5 (the control tube without antigen) it would indicate that haemolytic substances are present in the complement serum, or the blood suspension, or both. If, however, haemolysis occurs only in one or more of the tubes containing the antigen emulsion, the control remaining unhaemolysed, it demonstrates that the antigen is haemolytic and, in this event it should be discarded.

The determination of the presence or absence of anti complementary properties are given in the following table:

(Dilute Antigen the same as in Haemolytic Titration)

Tube No.	Amount of salt solution.	Units of complement.	Amount of Antigen emulsion.	Amount of blood suspension.	Units of Amboceptor.
1	0.9 c.c.	2 units	0.05 c.c.	0.1 c.c.	2 units
2	0.9 c.c.	2 units	0.1 c.c.	0.1 c.c.	2 units
3	0.9 c.c.	2 units	0.15 c.c.	0.1 c.c.	2 units
4	0.9 c.c.	2 units	0.2 c.c.	0.1 c.c.	2 units
5	0.9 c.c.	2 units	None	0.1 c.c.	2 units

Incubate in water bath at 37 degrees C for one hour, shaking every fifteen minutes.

As a result of this titration there should be complete haemolysis in all of the tubes. If the control tube No. 5 shows inhibition of haemolysis, it will demonstrate that something is wrong with either the complement, amboceptor, or blood suspension, but if this No. 5 shows haemolysis, and any of the tubes containing the antigen emulsion show inhibition of haemolysis, it demonstrates that the antigen is anti complementary and under such circumstances it should be discarded.

The antigenic strength of the antigen is obtained by titrating it with a known positive serum in the following manner:

Titration of Antigen to Determine Antigenic Properties.

(Dilute Antigen same as in Haemolytic Titration)

Tube No.	Amount of salt solution.	Amount of syphilitic serum (inactivated)	Amount of		Amount of blood suspension 10%	Amount of Amboceptor.	Inoculate in water bath at 37 degrees C for one hour, shaking every 15 minutes.
			Amount of syphilitic serum (inactivated)	Amount of antigen of complement. (1 to 9)			
1	0.9 c.c.	4 drops (.08 c.c.)	2 units	0.05 c.c.	0.1 c.c.	2 units	Inoculate in water bath at 37 degrees C for one hour, shaking every 15 minutes.
2	0.9 c.c.	4 drops (.08 c.c.)	2 units	0.1 c.c.	0.1 c.c.	2 units	
3	0.9 c.c.	4 drops (.08 c.c.)	2 units	0.15 c.c.	0.1 c.c.	2 units	
4	0.9 c.c.	4 drops (.08 c.c.)	2 units	0.2 c.c.	0.1 c.c.	2 units	
5	0.9 c.c.	4 drops (.08 c.c.)	2 units	None	0.1 c.c.	2 units	
6	0.9 c.c.	Normal Serum	2 units	0.1 c.c.	0.1 c.c.	2 units	
7	0.9 c.c.	Normal Serum	2 units	0.2 c.c.	0.1 c.c.	2 units	
8	0.9 c.c.	Normal Serum	2 units	None	0.1 c.c.	2 units	

As a result of this titration all the tubes containing antigen and syphilitic serum should show absolute **inhibition of haemolysis**. Control tube 6 containing normal serum and 0.1 c.c. of antigen and control tube 7, containing normal serum and 0.2 c.c. of the antigen, should show **complete haemolysis**, while control tube 8, containing normal serum and no antigen should also show **complete haemolysis**. Control tube 5 containing syphilitic serum with no antigen should show **complete haemolysis**.

If these results are obtained, the titration has demonstrated that the antigenic emulsion used is capable of producing inhibition of haemolysis in a dose as small as 0.05 c.c. and that it does not inhibit haemolysis in the presence of normal serum

even in four times that dose. Therefore the antigen is a suitable one to use in complete fixation tests.

An antigenic unit may be defined as the smallest amount of antigenic emulsion that will produce absolute inhibition of haemolysis in 1 c.c. of a 1 per cent. suspension of erythrocytes in the presence of two units each of complement and amboceptor in the presence of 4 drops of syphilitic serum, and this is the amount that is used in Craig's method for the complement fixation tests for syphilis.

As regards the **Complement** that obtained from guinea pigs has been demonstrated to be the most desirable. Well nourished and fully grown pigs are bled by severing the carotid artery, allowing the blood to flow directly into a sterilized petri dish. The dish containing the blood is permitted to remain at the room temperature for about two hours, after which time it is placed in an ice box. The most convenient procedure is to bleed the animal late in the afternoon of the day preceding its use allowing the blood to remain in the ice box for a period of from 12 to 15 hours. The blood will thoroughly clot during this time and the clear serum can be poured off in a most convenient manner. Experiences show that serum collected by this manner is most suitable for use. In using the serum it is the practice in the Health Department's Laboratory to dilute it with equal parts of normal salt solution. In performing the "Wasserman Test," and the use of complement for that purpose, Craig (7) very emphatically insists that each lot of complement should be titrated each time before use as different lots of complement not only materially differ in their original strength, but will diminish in its powers with age beyond certain limitations. This procedure is always followed:

The method of titrating complement is as follows:

(Dilute the serum with equal parts of normal salt solution)				
		Amount of blood sus- pension. 10%		
Tube No.	Amount of salt solution.	in normal salt solution.	Amount of amboceptor.	Amount of com- plement.
1	0.9 c.c.	0.1 c.c.	1 unit	0.02 c.c.
2	0.9 c.c.	0.1 c.c.	1 unit	0.04 c.c.
3	0.9 c.c.	0.1 c.c.	1 unit	0.05 c.c.
4	0.9 c.c.	0.1 c.c.	1 unit	0.06 c.c.
5	0.9 c.c.	0.1 c.c.	1 unit	0.07 c.c.
6	0.9 c.c.	0.1 c.c.	1 unit	0.08 c.c.
7	0.9 c.c.	0.1 c.c.	1 unit	0.10 c.c.
8	0.9 c.c.	0.1 c.c.	None	0.10 c.c.

Incubate in water bath at 37 degree C. for one hour, shaking every fifteen minutes, and then read result.

After incubating in the water bath at 37 degrees C. for one hour, the smallest amount of serum that has caused haemolysis is noted, and this constitutes one unit of complement. For example, if it is found that the tube containing 0.05 c.c. of complement (Tube No. 3) shows complete haemolysis, and the tubes containing less are only partly haemolysed, then 0.05 c.c. of the serum, diluted in the proportion stated, constitutes one complement unit, and in making the Wasserman test twice this amount or 0.1 c.c. of the diluted complement is used for each tube. The control tube No. 8 should show no haemolysis.

A Complement Unit is the smallest amount of complement that will cause complete haemolysis of 1 c.c. of a one per cent. suspension of erythrocytes in the presence of one unit of amboceptor in 60 minutes at 37 degrees C.

The production of Haemolytic Amboceptor. The haemolytic system used in the Department of Health Laboratory of Buffalo is that suggested by Noguchi (6) and adopted by Craig (12) known as the anti-human. With this system the employment of human red blood corpuscles is necessary and an amboceptor produced by the injection of washed human blood corpuscles is employed. Experience has demonstrated that large quantities of human blood suitable for this work can be readily obtained from the Lying-in Institutions in large cities. It is the writer's custom to furnish small flasks containing definite quantities of a sterilized two per cent. solution of citrate of soda, the flask being marked so that definite quantities of blood may be collected from the placental end of the severed cord during the time of parturition. Blood collected in this manner has been found to be sufficiently steril. The blood is distributed in large centrifugal tubes and the corpuscles deposited after which normal salt solution is added and the mixture recentrifugated, the washing process being repeated until all albumen has been removed, as shown by the nitric acid test of the clear fluid. The method for animal immunization is that suggested by Noguchi (5) using gradually increased amounts of red blood corpuscles starting with 5 c.c. and increasing until 25 c.c. is the amount used, allowing a period of from 5 to 7 days between injections and injecting the corpuscles intraperitoneal after removing the hair from the animal and staining the outer skin with iodine. After nine days following the last injection, the animal is bled from the carotid artery into a large petri dish and the blood is allowed to coagulate by remaining at the room temperature at least two hours after which it is placed in an ice box. As soon as a clear serum presents itself it is incorporated upon filter paper and quickly dried under a current of air from an electric fan. The determination of the amboceptor unit is as follows:

Preliminary Titration of Amboceptor Paper

Tube No.	Amount of salt solution.	Amount of complement.	Amount of blood suspension 10%	Amount of Amboceptor paper 3
				M.M wide
1	0.9 c.c.	1 unit	0.1 c.c.	1 M.M.
2	0.9 c.c.	1 unit	0.1 c.c.	2 M.M.
3	0.9 c.c.	1 unit	0.1 c.c.	3 M.M.
4	0.9 c.c.	1 unit	0.1 c.c.	4 M.M.
5	0.9 c.c.	1 unit	0.1 c.c.	5 M.M.
6	0.9 c.c.	1 unit	0.1 c.c.	None

Incubate in water bath at 37 degrees C. for one hour.

After incubating in a water bath at 37 degrees C. for one hour, the titration is read, and if any of the tubes containing from one to five M.M. of the paper is completely haemolysed, the paper is strong enough for practical purposes. There should be no haemolysis in Tube No. 6.

It is the writer's experience that any method of conducting the "Wasserman Test" by the use of anti sheep system is open to very serious error, for the reason that human serum oftentimes has an amboceptor or haemolysin, a property itself of sheep's corpuscles, and the determination of units necessary to employ in the test is most difficult. Human beings undoubtedly are to a degree immunized against sheep tissues probably through the agency of lamb and mutton being used for human food, and for this reason any method using an anti human system seems preferable. The only objection to the anti human system is the inconvenience and sometimes difficulty in procuring sufficient quantities of human blood, but with Municipal Laboratories in large cities the writer finds that this objection can be easily overcome.

If an anti sheep haemolytic system, such as outlined in the original test by Wasserman, must be employed, the procedure, described by Simon (3) of diluting the inactivated human serum to be tested with 5 volumes of the sheep corpuscular emulsion, and allowing this mixture to incubate thirty minutes with subsequent centrifugation to obtain a clear fluid for testing should be employed. Failure to carry out some procedure that will remove the normal sheep amboceptor in human sera is undoubtedly one reason why so many workers using the original Wasserman technique with anti sheep haemolytic system have so many varied results and as Simon (3) has so admirably stated "The Objectionable Nachlosung." This procedure of depletion adds an additional complication to an already overburdened test and the necessity for its use can be

entirely eliminated by the use of the anti human system, suggested by Noguchi (5), as applied by Craig (12).

The significance to be attached to the various grades of reaction, in the writer's opinion, cannot be more appropriately expressed than quoting practically verbatim from a portion of an article by Charles F. Craig, published in Bulletin No. 3 of the Surgeon General's Office, U. S. A.: Dr. Craig (7) states:

"I have been impressed with the uncertainty that appears to exist among the profession regarding the interpretation to be placed upon the results obtained with the complement fixation test for syphilis, especially as regards **diagnosis** and the **control of treatment**. Many patients have been told that they were free from syphilis upon the strength of a single negative reaction, while the diagnosis of syphilis has been repeatedly made, in my experience, on the presence of a plus-minus or a plus reaction in the absence of a history of infection and any symptom of the disease. Such interpretations of the reaction are entirely unwarranted and have led to the infection of innocent individuals, on the one hand, and to great mental and physical suffering by those unjustly stigmatized as infected with this disease on the other.

In any consideration of this phase of the subject, a clear conception must be had of the meaning of the terms employed in reporting reactions. In the Army Laboratory there is used four designations for the reaction, **double-plus, meaning a positive reaction; plus and plus minus, doubtful reactions; and minus a negative reaction**. It is necessary that these terms and their meaning be kept clearly in mind in order to understand the discussion that follows:

The significance to be attached to the various grades of reaction reported varies with the stage of syphilis in which they are obtained. Thus, a plus reaction in the primary stage of syphilis means much more than it does in the secondary stage, as a considerable proportion of primary cases never give more than a plus reaction before the development of secondary symptoms. Therefore it will be necessary to consider the interpretation of the reaction for each stage of the disease.

Interpretation of the results in the primary stage of syphilis: In this stage of the disease a diagnosis should only be based upon a plus or a double-plus reaction. While the plus-minus reaction, especially if obtained during the first and second weeks after the appearance of the suspicious lesion, is of some

value, it is best to consider such reactions as negative and have the test repeated within a week or two, when, if the disease is syphilis, a plus or a double plus reaction will probably be obtained.

A double plus reaction in the primary stage of syphilis is absolutely diagnostic, provided the few conditions in which such a reaction is occasionally given can be excluded. It will be noted that in 13.8 per cent. of primary cases tested during the first week a double-plus reaction was obtained and that this percentage increased until by the fiftieth week 61 per cent. of the cases gave a double-plus reaction. It will be seen that a very considerable proportion of cases in the primary stage give a double-plus Wasserman test.

It is my (Craig's) belief, that a plus reaction in the primary stage of syphilis, should be given nearly as much value as a double plus, but under the same limitations. Craig has never observed a case of primary syphilis giving a plus reaction that afterward became negative, unless as the result of treatment. If there is a clear history of infection, or a suspicious lesion is present, a plus reaction should be regarded as a positive reaction, provided more than one test be made with the same result. In the absence of either a history of infection, or a lesion, a plus reaction should not be considered as diagnostic.

Craig has already stated that a plus-minus reaction should not be considered as diagnostic of syphilis in the primary stage of the disease and that repeated examinations should always be made in such cases.

The significance of a negative reaction during the primary stage of syphilis is practically nil. Between 10 and 20 per cent. of cases in this stage of the disease give a negative reaction, and it therefore follows that even repeated negative reactions in this stage do not prove the absence of syphilis.

Interpretation of the results in the secondary stage of syphilis. Of 1,582 cases of syphilis in the secondary stage of the disease, 1,518 or 95.9 per cent., gave a positive reaction. In those giving a negative reaction secondary symptoms were present in all, so that it must be admitted that between 4 and 5 per cent. of secondary cases give a negative result.

A double-plus reaction in patients presenting suspicious symptoms of this stage of syphilis is conclusive evidence of the presence of the disease under the limitations already mentioned in discussing the interpretation of the test during the primary stage.

A plus reaction when symptoms are present or when there is a clear history of a primary lesion, while not of as great value in this stage as in the primary is practically conclusive evidence of syphilis. A plus reaction is observed in about 15 per cent. of cases in the secondary stage of syphilis, even when very active symptoms are present, so that a very careful consideration of all the features of the case must be given before one ignores the presence of a plus reaction in the secondary stage.

A plus-minus reaction in this stage of syphilis is valueless from a diagnostic standpoint and one does a great injustice to the patient if a diagnosis of syphilis is made on such a reaction. In Craig's experience, either a double-plus or a plus reaction is invariably obtained in cases that react at all, unless treatment has been given. When this is the case, the treatment should be omitted, the test repeated after an interval of two or three months, and if the reaction is still plus-minus, the diagnosis of syphilis should not be made in the absence of other symptoms. However, if the reaction has become plus or double-plus a diagnosis of syphilis may be made.

A negative reaction in supposed cases of secondary syphilis, is of greater diagnostic value than in any other stage, but even here **we must not forget that practically 5 per cent of secondary cases presenting active symptoms give a negative reaction and this reaction may persist upon repeated examinations.** While this is true, a negative reaction in the supposed secondary stage of syphilis, persisting over several months, and in the absence of further symptoms of the disease may be regarded as conclusive, provided no treatment has been administered. The same interpretation may be made of a negative reaction on those cases having an indefinite or no history of infection and no typical symptoms provided the negative result is obtained upon repeated examinations.

Interpretation of the results in the tertiary stage of syphilis. The Army data show that between 12 and 15 per cent. of cases in the tertiary stage of syphilis give a negative reaction, a fact of great importance in interpreting the result of the test during this stage of the disease.

A double-plus reaction in the tertiary stage of syphilis is diagnostic under the limitations already noted.

A plus reaction occurs in a larger proportion of the tertiary than of the secondary cases and is therefore of greater diagnostic value. In patients presenting suspicious tertiary lesions, Craig believes it should have the same value as a double-plus reaction, provided it is repeatedly plus and with the same limitations that have been noted for this grade of reaction in the other stages of syphilis.

A plus-minus reaction is of no diagnostic value in the tertiary stage unless it is permanent or treatment has been administered. Repeated examinations should always be made in such cases before the condition is diagnosed as syphilis, but in the presence of a clear history and of symptoms a plus-minus reaction should not lead one to consider the case as non-syphilitic.

A negative reaction in patients suspected of tertiary syphilis is only of value in excluding the disease when it is repeatedly negative over a period of many months and typical symptoms have not developed. As Craig's results show that practically 15 per cent. of cases of tertiary syphilis, presenting symptoms, give a negative reaction, it is evident that this alone is not sufficient to enable one to be sure that the patient is free from the disease, unless the test is repeated as stated. In the absence of typical symptoms and a history of infection a negative reaction, if repeatedly negative may be interpreted as indicating the absence of syphilis, provided no treatment has been administered.

Interpretation of the results in latent syphilis. Of patients tested in the latent stage of syphilis, 65.2 per cent., gave a positive reaction. Almost all of these cases had received more or less treatment and none of them presented symptoms of the disease beyond glandular enlargements. It is in this class of cases that the value of the Wasserman test in the diagnosis of syphilis, is best illustrated, but one must be very careful in interpreting anything but a double-plus reaction as diagnostic of the disease.

A double-plus reaction is not obtained as often in the latent stage as in the active stages of syphilis, but when obtained is diagnostic under the limitations already mentioned.

The interpretation of a plus reaction offers the greatest difficulty in this class of cases, as we obtain more plus reactions in latent syphilis, than double plus reactions. A plus reaction, provided there is a clear history of infection, and if specific treatment has been administered for some time, should have the same value in diagnosis as a double-plus reaction. Craig believes that in such cases a plus reaction is diagnostic of syphilis under the limitations already noted. When there is no history of infection a diagnosis of the disease should not be made on a plus reaction.

As most patients applying for a Wasserman test in the absence of symptoms have been treated for the disease at an

earlier period, and are anxious to ascertain whether they are cured, a greater value has to be given, in such instances, to the plus-minus reaction. If there is a history of infection and treatment has been administered, a plus-minus reaction should arouse the suspicion that the disease is still present and indicates the resumption of treatment, but two or three tests should be made before treatment is resumed. When there is no history of infection a plus-minus reaction is of no diagnostic significance.

A negative reaction in cases suspected of being in the latent stage of syphilis is of no value in excluding the disease, unless it is consistently negative over a long period of time. Statistics show that 35 per cent of latent cases gave a negative result and a considerable proportion of these later developed symptoms and the Wasserman became positive. It is therefore evident that a negative reaction does not exclude syphilis in cases suspected of being in the latent stage of the disease."

In conclusion I wish again to quote directly the remarks of Dr. Craig on Page 44 of the Bulletin—Studies of Syphilis.

"If the disease in which the Wasserman complement fixation test has occasionally been found positive can be excluded (such as named in the circular sent to the Physicians of Buffalo) a double-plus reaction is sufficient to enable one to diagnose the presence of syphilis. **Under such conditions Craig considers the test absolutely specific, whether symptoms of the disease are present or not, and whether there is or is not a history of infection.**

Under the same conditions, and with a history of infection or the presence of clinical symptoms, a plus reaction should also be interpreted as diagnostic of syphilis.

A diagnosis of syphilis should never be made on the presence of a plus-minus reaction alone. Many normal individuals will give a plus-minus reaction at times, and therefore such a reaction cannot be considered as having any more value than a negative reaction in the absence of a history or symptoms.

A single negative reaction is of no value in excluding syphilis. Only when such a reaction is obtained on repeated examinations extending over at least a year can it be considered as good evidence of the disease. In the interpretation of a negative result, the history of the patient, the presence or absence of symptoms, and the amount of previous specific treatment must all be carefully considered.

The interpretation of the results of the complement fixation test must, therefore, always rest with the clinician. The laboratory simply reports the result of the test, without reference to data regarding the history of the case or the symptoms present, and it must rest with the clinician to correlate the laboratory report with the clinical condition present, and this is only possible when the clinician possesses a clear conception of the limitations of the "Wasserman Test" and of the interpretation which should be given the reaction in the various stages of syphilis."

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A Contribution to Our Knowledge of the Excretion of Phosphates in Infancy. Knox and Tracy, in the American Journal of Diseases of Children, June, 1914, think that every infant admitted to the hospital should be placed on the metabolism bed for at least 24 hours to get an accurate knowledge of the kidney function. In their investigation they include 19 infants with 3 deaths. The determination of the phosphorus in the urine was made by the uranium titration method, the Neubauer method for the food mixtures, for the nitrogen determination the Kjeldahl-Gunning method. The results confirmed the observations of others that the urinary phosphorus secreted by artificially fed infants is greater than that recorded for the breast-fed child, but no deduction as to the nature or severity of the nutritional derangement can be drawn from the amount of urinary phosphorus.—C. G. L-W.

BUFFALO MEDICAL JOURNAL

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Weight Fallacies.

The practical importance of the psychic influence of changes in weight, upon both patient and physician, has been suggested by the chagrin of a woman who, in spite of favorable progress, found that she had lost three quarters of a pound in a week. Similar discouragement is often manifested by patients, even those bordering on obesity and, on the other hand, false hopes are often raised by the trivial physiologic variations in diurnal weight. That the medical profession itself is sometimes unduly impressed by changes in weight, is evident from many statements and implications in medical literature and, especially by the almost routine note of gain in weight, in the first reports of every new method of dealing with tuberculosis and by the almost unanimous advice to withhold water in treating obesity, on account of the initial rapid loss of weight thus secured, though it is perfectly obvious that, barring some form of dropsy or other condition actually demanding a restriction of liquids, the metabolic processes on which oxidation of fat depends, require an adequate supply of water.

The late President Lincoln, on being asked how long a man's legs should be, replied that, in his opinion, they should be long enough to reach from the trunk down to the ground. As tables of standard weight and height are almost as freely supplied as blotters, it may be pardonable to state that a man's weight should be somewhere between extreme leanness and the beginning of fatness. Excepting, of course, significant alterations in weight, or rather permanent conditions due to some underlying disease, and limiting our attention to relatively permanent, individual amounts of adipose tissue, there is

neither physiologic nor empiric reason for declaring that a certain weight standard should be maintained for a given age or height, although it is convenient to have average figures and a notable departure from any average physical datum, always arouses distrust, even if no definite explanation is at hand.

It is especially important to realize that the popular conception that leanness implies lack of resistance or lack of mental and physical energy is quite incorrect. It has been disproved over and over again in military experience, in studies of longevity, in fact in almost all practical tests of routine endurance. The misconception probably survives because of the confusion of idiosyncratic leanness with emaciation due to disease. It should be stated however, that while most instances of longevity are observed in lean persons, a marked reduction of weight, late in life, in a person previously of fleshy habit, is usually an unfavorable omen, even if no definite pathologic process can be diagnosed.

It must also be conceded that in a great variety of diseases, failures of nutrition of various kinds, reduce the weight below the individual normal. In such conditions, the gradual restoration of the original weight is usually favorable but care must be taken to impress upon the patient, a realization that there is no particular reason for either hoping or desiring that the gain should pass the original norm and that, if this norm has been in excess of the average, it would be better not to pass the latter. Moreover, to avoid discouragement, the attempt should be made to have the patient realize that gain in weight during convalescence should be very gradual and cannot be uninterrupted. in fact, there is as much objection to letting the patient keep track of his own weight as of his own temperatures—on some accounts more.

We have spoken of the diurnal fluctuations of weight as trivial, but it should be clearly understood that they are of greater magnitude than any feasible average gain or loss for a 24-hour period, under comparable conditions. For the sake of convenience, weights are usually taken with the "ordinary" clothing and, for approximate purposes, there is no objection to this plan, provided due allowance is made. Unfortunately, patients—and perhaps physicians—are more apt to be impressed with the importance of a moderate gain or loss from one time to another than with the importance of a fairly exact allowance for clothing. For instance, the man who would be discouraged at a loss of half a pound in a day, would probably pay little attention to whether he wore a hat or a vest at one weighing and not at another, whether he had on low or high shoes, whether he had changed from a winter to a spring suit, whether his pockets were empty or loaded with silver, papers,

etc. Exclusive of hat and overcoat, the ordinary winter clothing and the contents of the pockets of a man, may weigh as much as 20 pounds while an outing costume in summer, with empty pockets, may weigh only 5 pounds. It is thus evident that purely extrinsic weights exceed any possible actual gain or loss.

From the theoretic standpoint, we all understand that considerable variations in the alimentary contents may depend upon constipation. While the average weight of the faeces is stated at 60 to 100 grams, it is by no means rare to observe a formed stool a foot long, and over an inch in diameter—30 c. m. long by 3 c. m. in diameter. It is a matter of simple mensuration to show that such a stool has a volume of about 210 c.c. and, according as it floats or sinks in water, its specific gravity corresponds to a weight of a third to half a pound. Constipation involving accumulations of 1 to 3 pounds, is quite an ordinary occurrence.

Equally familiar are the facts that the diurnal urine amounts to 2 to 3 pounds normally, insensible perspiration to 1 to 2 pounds, exhaled watery vapor to nearly as much, that the water drunk in a day amounts to a couple of pounds or more and the solid food to about one pound of proximate organic nutrients and to two or three pounds of gross food stuffs. It requires only a little more elaborate calculation to show that the carbon, exhaled as carbon dioxid, mainly by the breath, amounts to about a third of a pound a day of carbon and to nearly a pound of carbon dioxid.

Unfortunately, the patient, unduly impressed with the idea that a gain or loss of weight means a gain or loss of health, does not understand these factors of diurnal fluctuation; while the physician, knowing them as physiologic data, thinks of them as theoretic and very minor factors, reckoned in grams and miligrams by the physiologic expert, and observed by elaborate instruments. Just to show how large these factors are and how plainly they show themselves without recondite methods of study and by the mere use of ordinary, fairly accurate office scales, the following data are presented:

Weight at 11 P. M. with clothing.....	167 $\frac{1}{4}$ lbs
Weight, at 11 P. M. naked	159 $\frac{1}{2}$ lbs
Weight at 11 P. M. naked, after emptying bladder....	159 lbs
Weight at 5.30 A. M. naked, before emptying bladder,	158 $\frac{1}{2}$ lbs
Weight at 5.30 A. M. naked, after emptying bladder,	157 $\frac{3}{4}$ lbs
Weight at 9 A. M. naked, before emptying bladder...	157 $\frac{1}{2}$ lbs
Weight at 9 A. M. naked, after emptying bladder	157 lbs

In ten hours, without food or drink or exercise or sensible

perspiration, we note a total reduction of $2\frac{1}{2}$ pounds in weight, if no allowance is made for the accumulation of half a pound of excreted but not voided urine. Without this allowance, the reduction was two pounds. It will also be noted that more than $\frac{3}{4}$ of a pound of this reduction was due to evaporation and exhalation, the remainder to urinary loss. Now, while it may seem that in the ordinary weighing of patients during the day time or evening, fairer comparisons may be made, it is obvious that unless attention is given to voidance of urine and faeces, ingestion of food and water, sensible perspiration, not to mention accuracy with regard to clothing, equally great differences may be observed without any change whatever in the actual weight equilibrium.

Personal Liberty.

“Give me Liberty or give me death,” said Patrick Henry, in a speech which was one of the determining factors in precipitating the American revolution. Edgar M. Cullen, retired Chief Justice of the Court of Appeals, in an address before the New York State Bar Association, calls attention to the encroachment by law on the liberties of the American people. “No trade or calling seems so limited . . . the advocates of no hobby or nostrum so few . . . as to be denied the privilege of having a new misdemeanor created.” This sentence is our excuse for referring again to this matter in a medical journal. Probably no trade or calling has originated so many restrictive laws as has the medical profession. And it should be conceded that, to give liberty, in many instances, and especially in the matters in which it has been curtailed by laws originating in the medical profession or based on medical knowledge, means to give death, either to the one demanding the particular freedom of action, or to some one else.

On the other hand, it must be recognized that, in matters of personal liberty, the freedom of the individual in the United States is a sardonic joke. From Russia, west to China, there is no country in which the morals and health and actions of the individual are so personally conducted as in this reputed land of liberty. Hence, there is good reason to consider the matter seriously, before we are either so hedged in with restrictive legislation as to render conscience or self control or common sense unnecessary or have erected so complicated a structure of guiding rules that it will fall to pieces by its own weight and produce a state of anarchy.

Some of the matters considered by Judge Cullen are the fol-

lowing: Violation of the principles of the national and state constitutions in regard to the subordination of military to civil power, as in the West Virginia coal riots; the placing of Copperfield, Wash., under military law, by order of the governor's female secretary, because the civil authorities failed to close the saloons; the conviction of the Pioneer Press Co. for publishing an account of an execution, though admittedly in moderate and unsensational language; eugenic legislation, requiring medical certificate for marriage, regarding which, Judge Cullen points out the perfectly obvious fact that marriage is not a necessary prerequisite to propagation; the control of manufactures and sales of merchandise purely in the interests of competing industries; the recent attempt to enforce total abstinence.

It is a very delicate question to decide, when the interests of the public justify the restriction of the individual. The point of view changes also. The men who established this country considered the right to bear arms so important as to place it in the constitution. We have reached a point at which, on the whole, the man who does not go armed, is a good deal safer, not only to the community but to himself. But, so long as the item remains in the Constitution, it ought to be observed.

A vast amount of legislation deals with strictly moral matters, not involving direct and gross injury to others. We hesitate to say anything that would appear to uphold wrong doing but, here also, it is not always easy to distinguish between principle and prejudice. Solon, one of the most important law givers, conducted houses of prostitution for profit; Solomon another legal authority, would have been liable if modern laws had been in force, to so many convictions for bigamy that he would still be serving time for them, if alive. Virtus is clearly the original of our word virtue, but it meant such a different conception to the Romans that it is only rarely that it can be translated from the Latin by the same word. Theoretically, we concede to every individual the right to his own religion, or to no religion at all; but we have a mass of Sunday laws which prohibit all sorts of actions that are allowed on other days. Even those regulations which are based on the hygienic need of rest, including the restriction of night work and of hours of labor, often result in discharge of employees because the conditions are not practical. We no longer persecute the heretic, except in such indirect ways but we suffer the independent workingman to be ostracized, deprived of a means of livelihood and even assaulted and killed, for a closely comparable form of heresy. Even legally, the status of organized labor is beginning to be acknowledged as was formerly, that of the established church. Understand, we

ualism, but it is a dangerous precedent to admit that a man has not the right to a minority opinion, even if it is foolish.

We should recognize that the contention that liberty is dearer than life is not merely one of oratory. It is actually better to have a slightly higher death rate with reasonable liberty, than to achieve the potential maximum of longevity, with the constant friction of restraint. We may go farther and claim that the potential maximum, as it appears at present, cannot be achieved if all the restrictions necessary to its accomplishment are enforced. The list of preventable deaths is decreasing, though not at so rapid a rate as might be desired. But, already, we find an increase in various death rates from degenerative diseases, an important factor in which, is increased strain and effort due to the friction of highly developed civilization. One of our friends and patients fell dead, from apoplexy, due to the sudden financial strain of meeting medical and hygienic requirements for the prolongation of his life. The increased tax necessary to prevent typhoid undoubtedly produces a contra-account, though fortunately of less amount, of deaths from increased stress of living. From the standpoint of pathology, we recognize clearly, the cumulative action of repeated, minor traumatisms. We are already far past the time when one of good intentions could go through life with the comfortable feeling that he need not bother about the law since the law would not trouble him. Just as an example, one of our professional friends has announced his intention of eliminating entirely from his armamentarium, several useful, almost indispensable drugs, simply on account of the red tape with which their use is surrounded. Another, a general practitioner too, has eliminated several infectious diseases for the same reason.

It is proper that entirely local problems should be dealt with according to local interests but, owing to the existence of national and state governments, a technical knowledge of law is required, not only in regard to technical legal and business matters but for ordinary conduct. This statement is true both as regards license to practice, regulation of traffic, hours of labor, etc. franchise, but with regard to purely moral matters on which no general geographic difference of opinion exists.

The principle that one man's opinion should not dictate another's conduct, ought to extend well toward the control of majority rule. Only an overwhelming majority should restrict the liberty of a negligible minority. Certainly, a small minority of fluent reformers should not be able, by influence of a legislative body, to control the majority. Again, the same principle should prevent legislative control of religious and moral issues, unless these are supported also by clearly defined

issues of community welfare. Many feel that personal liberty involves the right to do what is unwise and wrong, even in their own estimation, providing that such a course does not directly endanger others. At any rate, it is exceedingly difficult to draw the line between legislative control of morals and personal welfare and the forcing of an arbitrary opinion of one person upon another. For example, as a total abstainer, the son and grandson of total abstainers, we are heartily in sympathy with the arguments in favor of total abstinence, but we question whether the forcible thrusting of these sentiments down the throats of a majority who are not total abstainers is justifiable, or whether it makes any difference whether the majority is on one side or the other.

A Question of Time.

We ask our readers to bear in mind the obvious fact that it takes time to prepare matter for the printer, to set type, read proof, run the press, bind the forms, and wrap for mailing, also that a day each must be allowed for ink and glue to dry. As a matter of practical experience, we find that original articles, editorials, book reviews and as much as possible of other matter, must be sent to the printer on the first of the month before the date of issue. Brief personal notices, etc., can usually be inserted up to the 20th or 25th of the month. As we aim to mail each issue by the fifth of the month, it is obvious that it is not worth while to publish certain announcements, received in time for printing, but referring to meetings examinations, etc., to occur before the date of mailing. So far as possible, original articles will be published promptly, but this department is usually planned two or three months in advance, and articles are even printed in advance to facilitate measurement of space. We have not found it practicable to reserve space in advance. For example, just after the March issue was completely printed and awaiting binding, we had an urgent request to publish a certain article in it. The author was informed that he would be just barely in time for the April issue. That manuscript was received June 1, when the original articles for the July issue were already in the printer's hands. Such experiences, with minor exceptions as to dates, are the rule, not the exception. The editor admits that he is just as bad as anyone in this way. No practitioner, however good his intentions, can always fulfill his promises and expectations, with regard to the preparation of an article.

TOPICS OF PUBLIC INTEREST

Long Island College Hospital, Brooklyn, has undergone complete organization in order to meet the modern requirements of teaching medicine. It has instituted a five year course to take effect in September of this year, and has arranged to add over twenty fulltime members to its faculty and every department has been increased. The junior year will be given over to dispensary work and didactic medicine and surgery, and the senior year will be devoted entirely to bedside work in the hospital owned by the college, which, with the new addition, will give the institution 560 beds and make it one of the largest in Greater New York.

The following gentlemen will occupy the new positions on the faculty:

Dr. Archibald Murray, Professor of Pathology.

Dr. William Lintz, Professor of Bacteriology.

Dr. John C. Cardwell, Professor of Physiology and Pharmacology.

Dr. Matthew Steel, Professor of Chemistry.

Dr. William Francis Campbell, Professor of Surgery.

Dr. Joshua M. Van Cott, Professor of Clinical Medicine.

Dr. William B. Brinsmade, Professor of Clinical Surgery.

Dr. E. H. Bartley, Professor of Pediatrics.

The Buffalo General Hospital graduated a class of 22 in June.

Dental Dispensaries, for Buffalo have been opened at 1067 Grant street and William and Stanton streets.

Electric Disinfection of Water. The first plant of this kind in America is being installed at Niagara Falls. Ultra-violet rays will be generated by electric lights through lenses containing mercury.

Blanks for Heroin, Morphine, Codeine, etc. The Martin H. Smith Co. call attention to the fact that such blanks must be obtained by physicians, in accordance with Chapter 363 of the Health Laws of New York. Application should be made to the Secretary of the State Board of Health at Albany.

American Doctor Studies Typhus. Dr. Clarence D. Ussher, has received public thanks from the vali of the Turkish vilayet of Van for his "humane zeal and care for the sick" in the recent epidemic of typhus among the Turkish soldiers quartered in the city of Van. Dr. Ussher is in charge of the Amer-

ican Board's hospital in Van. He is a graduate of Kansas Medical College and has been in Turkey since 1898.

Van, the city, is the center of the Turkish province of the same name, away up in the northeastern corner of Asiatic Turkey. On its eastern border the vilayet joins Persia while on the north it is very near the Russian Caucasus. The city is on the shore of Lake Van, a large sheet of water whose surface is 5,500 feet above tide level. The city is said to have been built by Semiramis and strange and interesting inscriptions and carvings are found in and about it.

Since the American Board began work there, the mission has been through war, famine, pestilence and massacre and the epidemic of last winter will take its place in the history of calamities which Americans have helped the people to fight.

The Turkish military authorities were not insistent on cleanliness and sanitation and over 2,500 soldiers have died of the disease. Dr. Ussher was active wherever he was permitted to serve but had not access to the barracks or to the military hospital. In the Board's hospital, however, and in going about among the sick in the camp and in the city he made careful study of the disease and says:

"We have proved very conclusively in our hospital that the only means of infection is vermin. Our nurses have been thoroughly exposed to every form of contagion from the breath, desquamation, discharges, constant association day and night, and all this in an over-tired condition, and not one of them contracted the disease. The typhus patients have been put in the same ward with surgical, pneumonia, dysentery and even confinement cases, and not a single patient has become infected in the hospital. One of our nurses subjected himself to infected body lice, and promptly contracted the disease (incubation I think five days). I personally removed the lice from his body. We have become so sure of the mode of infection that, being compelled by the lack of bedding, we put patients with other trouble in the beds which had been occupied by typhus patients. We made no further change than clean sheets and pillow covers; and though in several cases the limit of incubation has passed twice over there has not been a single infection."

Two million people and only one doctor. Seven doctors, each with a territory holding two million souls. These are the facts of the medical situation in the part of China around the American Board's Shansi Mission. In addition to the surgical cases which are brought from many miles distant to Dr. Percy T. Watson at the Board's Dispensary in Fenchow-fu, the prefectural city which is the Shansi Mission's headquarters, there are many out-stations where patients are cared for in school rooms, in inn yards or wherever the doctor can find a vacant

room on his tours, while seven or eight opium refuges are managed from Fenchow-fu.

An opium refuge has just been reopened by American Board workers at Yulin-fu, a city of Shensi, the province next west of Shansi. Yulin-fu is in the shadow of the Great Wall and is the gateway of Mongolia from all western China. No missionary work has been done there since the Boxer uprising in 1900 when the opium refuge then in operation was destroyed. A medical station there would do untold good. But only seven physicians to fourteen million people. Where are the young American doctors having a passion for service and in search of a practice?

American Board of Commissioners for Foreign Missions,
Congregational House, 14 Beacon street, Boston, Mass.

Too Much Morality. Last month, a physician with his chauffeur, in a one-seated auto, accomodated a young lady with a ride. She sat, as convenience and safety required, on the doctor's knee. The doctor's wife brought action on the grounds of an offense against public decency. The case was dismissed. This is a sensible decision. There are probably very few men using one-seated vehicles of any kind who have not done the same thing. We have even seen a man sitting on a woman's lap in a street car. It is wise not to emphasize the sexual element by prudishness.

A jury recently refused to find a youth guilty under the Mann act. There was, apparently, no doubt of his having gone on a trip, outside of the state, with a young woman and the Mann act, ostensibly designed to oppose white slavery, has been construed to be a censor of morals without regard to the elements of commercialism, coercion or undue suasion. We do not wish to be understood as in any sense upholding immoral practices but we do not believe that any country can be made good by law and we consider it a dangerous precedent to extend criminal legislation beyond the range of direct damage to person and property. In the case mentioned, the evidence showed clearly that, if anything, the man was the injured party, as he claimed to have been made a heroin victim by the woman. If the Mann act is to be construed as a general censor of morals, let it apply equally to both sexes, with due regard for circumstances.

The Psychics of Female Suffrage. There are two points in this connexion that seem to deserve serious medical inquiry. What process of cerebration implies the demonstration of absolute unfitness for citizenship as an argument for obtaining it? Why, in similar countries, of the same language, with not much difference in race of the active parties, and with

nearly the same legal and social conditions, England and the U. S., do we have such marked contrasts of dastardly violence and of rational and temperate argument with, at most, the use of a few rather spectacular methods, such as "hikes." Can any one imagine the women who participated in the recent suffrage parade in Buffalo, smashing antiquities, violating the sanctity of churches, horsewhipping officials, and setting bombs?

Guarantees Under the Pure Food and Drug Act: June 30, 1906. The Dept. of Agriculture has at last taken definite action in regard to the silly method of attempting to secure pure foods and drugs. As might have been anticipated by anyone with the slightest acquaintance with business methods, this law has been exploited to imply a government guarantee of privately manufactured products and while rulings were made to prevent this natural tendency, the fact remained that any average person not informed to the contrary, would so understand the legally required addition to the label. On the other hand, manufacturers and others who naturally understood that provision would be made, as rapidly as possible for systematic examinations of claims of manufacturers, have been disappointed. Many manufacturers were not only willing but anxious to submit samples for analysis; in some cases to establish merit in which they felt full confidence, in others to prevent any possible violation of either the spirit or letter of the law in regard to doubtful points. That the government could not immediately attend to all these cases was obvious; that it should have no intention of doing so after having passed the law establishing general principles, was a curious inconsistency. 58,816 serial numbers have been assigned up to the present. No more numbers will be assigned but guaranties are to be attached to invoices. After May 1, 1915, the same system will apply to those now in possession of serial numbers, and such numbers and guaranties are to be omitted from labels. This is a wise move but it is incomplete. There should be, not a haphazard indictment of violators of the law but, having established the general principle that drug and food preparations must be pure and honest, there should be a systematic method of controlling them and of holding for reference, analyses. It should be distinctly understood that these criticisms are not directed against the highly efficient Dept. of Agriculture, which is limited in its scope by its appropriation, but to the legislative lack of foresight or even hindsight, exemplified in the law itself.

Advertising Principles. The Monroe Co. Medical Society has approved the following principles adopted by a joint com-

mittee of representatives of the Ad Club, of the Chamber of Commerce, of the Rochester Ministerial Union, of the Rochester Dental Society, of the Rochester Optometric Society, of the Monroe County Medical Society, of the Monroe County Homeopathic Medical Society and some of the newspapers.

PRINCIPLES AND PROHIBITIONS GOVERNING ADVERTISING.

Principles.

1. That advertising is objectionable which adversely affects the public health, morals or pocketbooks.

2. Anyone who accepts advertising for publication or display, in any medium he controls, is under moral obligation to protect the readers of, and legitimate advertisers in, such medium, against objectionable advertising.

3. Anyone offering advertising for publication or display, is equally responsible for the honesty, truthfulness and reliability of such advertising.

To vitalize the spirit of the principles above set forth, we adopt the following specific prohibitions:

Prohibitions.

I. Absolute and total, against

1. Objectionable medical advertisements.
2. Suggestive or indecent advertisements.

II. Partial or provisional, against

1. Offers of something for nothing or apparent mercantile impossibility.
2. Doubtful financial, mining, real estate, or other business propositions.
3. Any advertisement which fairly raises a suspicion of fraud.

With these principles we are in hearty accord. During the last three years we have refused about \$600 worth of advertising designated as II 2. It should be understood that we cannot personally guarantee the profitability of individual investments nor can we enforce our personal conviction that the small investor should keep to real estate and mortgages upon it, near enough so that he can give it personal supervision. But, in every instance in which such an advertisement has been tendered, we have taken every precaution in the interests of our readers. It must also be considered that there is some difficulty, especially in a medical journal, in deciding what advertisements are objectionable. One of our contemporaries which is very strong on ethics has published three that we consider highly objectionable and, we are informed by

the firms interested, has decided similarly against two others, after giving the manufacturers the opportunity to increase their advertising space. We have in mind an advertisement, considered unethical, which, on examination, showed merely bad taste in its lay-out and which conformed to every possible test of ethics. Again ethics is sometimes construed to mean that one may advertise a powerful drug and not a mild one; that a journal may advertise a firm which carries a hundred stock formulae, not one that concentrates on one or a few. In a recent case, the admission of an advertisement was considered unethical because the instrument advertised was unscientific and merely practical and approximate. It is obvious that a grading of this sort is out of the question, although we have excluded one advertisement because of the poor quality and inaccuracy of apparatus. It is obvious, on reflection, that a medical journal cannot apply the same rules to a merchant of ordinary wares, as to a manufacturer of drugs, in regard to insistence on lay advertising. There are a great many groups of advertisements; logically appearing in medical journals but applying to articles in common use as domestic remedies, beverages, use in cleansing and disinfecting, etc. In such cases as this, we endeavor to formulate a fair standard for each class and to apply it to all advertising of the class. For instance, beverages can not be excluded from lay advertising although, personally, we would go as far as to claim that, under ideal conditions, alcoholic beverages should be used only as drugs. This ideal is at present utterly impracticable. It can be achieved only by admitting alcoholic beverages to the class of medical advertising and by gradually restricting their use and advertisement in these directions. This being the case, no one article of this class can be singled out for opprobrium because of lay use and lay advertising. It has been ruled that the name of a drug should not suggest its therapeutic use. We recognize the force of the arguments but must admit that the suggestion of the use of a drug is both convenient and even a factor of safety. We do not see how the rule can be enforced as a principle of ethics, so long as emetine, morphine and *pilula cathartica composita* and numerous other official names remain in the *Pharmacopoeia*. Neither do we consider that this rule or any other should be applied *post facto*, until this country removes its constitutional objection to *post fact* legislation and this, we hope, will never occur. In short, the term "objectionable" must be applied in a reasonable and fair way, subject to differences of individual opinion. There is nothing quite so potent as the lime light of publicity to enable close scrutiny of anything that is doubtful. Close attention to advertisements and discussion of such points as may determine their ethical status, is the best means

of determining efficient and practical control of objectionable advertising.

The Robert W. Long Hospital was dedicated June 15, exercises being held in the Chamber of the House of Representatives at Indianapolis.

The Open Air Camp of Buffalo, has begun its seventh season. It is located on Grider street near Kensington avenue. Resident physicians and nurses are provided but cases may remain under the care of the physician sending them. Children will not be admitted this season as provision has been made for them at the J. N. Adam Memorial Hospital at Perrysburg. Applications should be made at the Tuberculosis Dispensary, 175 East Swan street.

The Samuel D. Gross Prize of \$1,500 will be awarded on essays received in competition up to January 1, 1915. Address the Trustees, 19 S. 22, Philadelphia, for detailed information.

Ancient Drug Store Loafers. In an apothecary's shop in Pompeii, has been found the following inscription: "Otiosus non est Locus. Discede morator." Not a resting place. Idler get out.

Imitations and Substitutes. The Purdue Frederick Co. have asked us to refer to this matter—which needs no argument—not only in their own interests but as a broad issue affecting the medical profession and the people.

Prison Epidemic of Scarlet Fever. Over 1,000 cases, most of them mild, have occurred in the last few weeks at Auburn. Uninfected men whose terms are nearly expired, will be discharged after a week's quarantine.

Alleged Leper at Large. John R. Early, whose case has attracted so much attention in the last five years, the diagnosis being questioned by some, escaped from the Diamond Head Quarantine Station near Port Townsend, Wash., May 18, was discovered at a fashionable residence hotel in Washington, D. C., June 2.

Small-pox in Mexico. This disease was formerly a scourge of military camps. It has recently broken out and has shown a high death rate in the Mexican Constitutionalist forces at Suliacan, the capital of Sinaloa.



Public Health Nurse's Service as Prize. Webster Grange No. 436, near Rochester sold the largest number of Christmas Tuberculosis seals in last year's contest and has been awarded the services of a nurse, Miss Elizabeth Hanson, as the prize. Lewiston Grange, Niagara Co., won the second prize. Miss Hanson will devote two months to work in Webster and will then proceed to Lewiston.

SOCIETY MEETINGS

Brief reports and announcements of meetings of societies of Western New York, and those of general scope, are requested from Secretaries. Copy should be on hand the fifteenth of the month. Full transactions will be published at cost of composition.

Buffalo Academy of Medicine, Annual Meeting, at Academy rooms, Tuesday evening, June 9, 1914. Officers elected:

President—Dr. John H. Pryor. Retiring president, D. H. R. Frick.

Treasurer—Dr. Lawrence Hendee. Re-elected.

Trustee for 3 years—Earl P. Lathrop.

Section officers:

Section of Medicine:

Dr. Theodore M. Leonard, chairman.

Dr. Carl Leo-Wolf, secretary.

Section of Surgery:

Dr. Charles W. Bethune, chairman.

Dr. Prescott LeBreton, secretary.

Section of Obstetrics and Gynecology.

Dr. James E. King, chairman.

Dr. Charles Banta, secretary.

Section of Pathology:

Dr. B. F. Schreiner, chairman.

Dr. John L. Eckel, secretary.

The Report of the Secretary was read by Dr. Herbert A. Smith.

Thirty-two regular meetings and one special meeting were held, with an average attendance of 76.

Twelve council meetings during the year.

The total number of members in good standing, June 9, 1914, was 351, a net gain of 22 members.

The Treasurer's report was very gratifying, showing an excellent financial condition.

The retiring President, Dr. Harry R. Frick, reviewed the work of the organization since its conception, its steady growth and future possibilities, emphasizing the need for an academy building.

The American Society for Physicians' Study Travels has abandoned its proposed trip for this year, on account of preparations for a tour around the world next year.

The American Association of Medical Milk Commissions held its eighth annual meeting, June 19 and 20. The first morning session, devoted to business and the afternoon session, to scientific papers, were held at the Hotel Seneca. After an automobile ride, further papers were presented at the Oak Hill Country Club after dinner. After the second morning session and luncheon, the members went to Avon by trolley, visited the Elm Place Farm, where more papers were read and the meeting adjourned after dinner at the Avon Inn.

The Elmira Academy of Medicine at its meeting of June 3, presented the following program: Sacro-iliac Sciatica, Dr. N. H. Sobel; Echinacea, Dr. Mary Potts.

The Clinical Congress of Surgeons of North America will hold its fifth annual session in London, Eng., during the week of July 27. A long program of papers and clinics by eminent surgeons, including surgical specialists, has been arranged.

National Dental Association, Rochester, N. Y., Opening General Session, Tuesday, July 7th, 11 A. M., Exposition Park.
Address of Welcome:

Governor Martin H. Glynn Albany, N. Y.
Mayor Hiram H. Edgerton Rochester, N. Y.
Roland B. Woodward, on behalf of the Chamber of
Commerce Rochester, N. Y.

Response:

Dr. B. Holly Smith Baltimore, Md.

President's Address:

Dr. Homer C. Brown Columbus, Ohio

Oration: "The Functions of Dentistry and Medicine in
Race Betterment." By Dr. Victor C. Vaughn,
(M. D.) Ann Arbor, Mich.

Tuesday, 8 P. M., Reports of Researches of the Scientific
Foundation and Research Commission.

"Studies on the Relation of Systematic Infections to Den-
tal Foci." By Dr. Thomas B. Hartzell.....
Minneapolis, Minn.

"Studies on Salivary Analysis." By Dr. Russell W. Bun-
ting Ann Arbor, Mich.

"Studies on the Formation of Calculus." By Dr. G. V.
Black Chicago, Ill.

"Studies on the Dental Pulp." By Dr. Frederick B.
Noyes Chicago, Ill.

- (a) "Metallurgical, Electro-Chemical and Physical Studies."
- (b) "Metabolism of Tricalcic Salts." By Dr. Weston A. PriceCleveland, Ohio
July 8th, Wednesday, 8 P. M.
- "The Early Recognition of Pre-cancerous Lesions of the Mouth and Tongue." By Dr. Joseph C. Bloodgood, (M. D.)Baltimore, Md.
- "Oral Manifestations in Syphilis." By Grover W. Wende (M. D.)Buffalo, N. Y.

Dr. Gaylord, Buffalo, and Dr. Plumley, Rochester, are Medical discussors on the Drs. Bloodgood and Wende papers. In addition to the above a very full program will be presented by members of the Dental profession and many of these papers no doubt will be interesting to the Medical men.

A Cordial invitation is extended to all reputable practitioners of Medicine.

Homer C. Brown, President,
Columbus, Ohio
Otto U. King, Secretary,
Huntington, Ind.

The Lake Keuka Medical and Surgical Association will meet this year at Grove Springs Hotel, near Hammondsport, on July 9th and 10th. Papers will be read by prominent physicians from Buffalo, Rochester, Syracuse, Elmira, New York City, Philadelphia and Albany, a very interesting and instructive program has been arranged. All the physicians in the state are invited and all residing in Erie, Allegany, Chemung, Livingston, Monroe, Onondaga, Ontario, Schuyler, Seneca, Steuben, Tioga, Wayne, Wyoming, and Yates counties are eligible for membership on the payment of one dollar dues.

The officers for this year are: President, Floyd S. Crego, M. D., Buffalo; vice-president, A. J. Knickerbocker, M. D., Geneva; Secretary, E. C. Foster, Penn Yan, N. Y.

Physicians who go by train should take the D., L. & W. train from Buffalo leaving here at 9.30 A. M., Wednesday or Thursday A. M. to Bath and Hammondsport. Those who go by auto, via Avon, Canandaigua and Penn Yan.

Medical Society of the County of Erie, met in Alumni Hall at the University of Buffalo on Monday evening, June 15, 1914, the President, Dr. John B. Woodruff, presiding.

The minutes of the previous meeting were approved as published and the minutes of the Council held June 1st were read and adopted.

Dr. Wende, Chairman of the Membership Committee presented the application of Dr. Joseph C. Wallace, who was

thereupon elected to membership. He also presented the names of Dr. Bourne, of Hamburg, Dr. Trull, of Williamsville, and Dr. B. Lothrop, of Buffalo, for recommendation to the State Society to be placed on the retired list.

Dr. Bonnar made a verbal report of the work of the Censors and said that they had collected fifty dollars fine from one conviction.

Dr. Lytle reported for the Survey Committee stating that out of 585 printed requests sent out to members only 191 had been returned with the information added.

Treasurer Lytle reported 83 names of physicians who were in arrears on June 1st with their dues. He said that the Council of the State Society had adopted a ruling that all members in arrears with their dues on June 1st would not be entitled to mal-practice defense, nor the Bulletin, nor the Directory. On his motion all members received at the October and December meetings of this year will be entitled to free membership for the balance of 1914.

Papers were read by Dr. L. B. Dorr on the Action of Sulphate on Hardening of the Arteries; by Dr. H. W. Cowper on Eye in General Practice; and by Dr. J. H. Dowd on Facts, Fancies and Failures.

After a discussion of the papers the Society adjourned.

PERSONAL.

Announcement of removal, travel, and other matters of interest are requested. Please report errors in the listing of any physician in the State and other directories, that we may co-operate with the State Society in securing a correct list.

Our Associate Editor, Sir William Osler, has been elected foreign associate of the Paris Academy of Medicine.

Dr. Bernard Bartow, of Buffalo, has removed his office and residence to 503 Delaware ave.

Dr. F. Park Lewis, of Buffalo, delivered the address to the graduating class of the State School for the Blind at Batavia, June 10.

Miss Maude E. Ragar has resigned the position of superintendent of the Brooks Memorial Hospital of Dunkirk.

Dr. and Mrs. Ray H. Johnson, of Buffalo, sail July 2 on the Baltic from New York, for a tour of Ireland, Scotland and

England, reaching London in time for the Clinical Congress of North American Surgeons, July 25 to Aug: 3.

Dr. Charles E. Congdon, of Buffalo, has returned from the Isle of Pines.

Dr. C. F. Smith, of Ransomville, was struck by an automobile in Buffalo, June 4, and was quite seriously injured, requiring treatment at the Emergency Hospital.

Dr. William G. Taylor, of Buffalo, has been appointed Assistant Obstetrician to the Buffalo General Hospital.

Dr. George J. Eckel, of Buffalo, has gone to Europe for several months.

Dr. and Mrs. W. W. Quinton, of Buffalo, have received a prize of \$50 for a one-act play entitled "The Finger of Fate," which has been staged by the Bonstell Co. at the Star Theatre.

OBITUARY

Readers are requested to report promptly the death of all physicians in Western New York, or former residents of this region, or graduates of any medical school in Western New York, and to notify the families of the deceased of our desire to publish adequate obituary notices.

Dr. Otis H. Babbit, N. Y. Homoeopathic, 1882, of Auburn, died May 8, aged 61.

Dr. Philip Heldrich, University of Maryland, 1883, died at his home in Baltimore, May 1. He was formerly a resident of Elmira.

Dr. John E. Brady, Buffalo, 1860, died at his home in Grand Rapids, Mich., May 18, aged 77. He was Asst. Surgeon of the 45th Illinois Volunteers, during the Civil War; a teacher in the Grand Rapids Medical College; and coroner of Kent Co., Mich.

Dr. John William Dowling, N. Y. Homoeopathic, 1886, died in Middletown, May 11, of cerebral hemorrhage, aged 49. He was Prof. of Medicine and Secretary of the college at which he graduated.

Dr. James Gillespie Hunt, Jefferson, 1871, died at his home in Utica, May 17, aged 68. He was surgeon to the Faxton Hospital.

ABSTRACTS.

Pellagra. Dr. J. T. Windell, of Louisville, Louisville Monthly Journal of Medicine and Surgery, May, 1914, reports the case of a female, aged 33, a tobacco stemmer. The lesions healed under Fowler's solution, but returned. The condition had lasted 13 years. There was a gain of 25 pounds, disappearance of gastro-enteric symptoms, marked nervous symptoms had not occurred. Some doubt was expressed as to whether the case was not eczema. (The cut is reproduced through the courtesy of the author and the editor.)



Some Observations on the Child of To-day. In his Presidential address before the Medical Association of the Greater City of New York, New York Medical Journal, May 9, 1914, Southworth gives an outline of what has been done for the welfare of children and also of some of the things that still have to be done in this line.—C. G. L-W.

Alcohol Medication. In reply to an editorial in the July, 1913, number of American Medicine, Critic and Guide, May, 1914, reprinted from American Medicine, Abraham Jacobi breaks a lance for the use of alcohol in cases of sepsis. He tells how he has tried, in his sixty years of practice, all the new remedies recommended for these conditions only to return to alcohol, and he refutes Ewald's statement that "all theories to the effect that it is to be classed as a stimulant are about exploded," by quoting some of his personal experiences of desperate cases in which alcohol has seemed to him to be of great benefit.—C. G. L-W.

A Voice Sign in Chorea. Swift in the American Journal of Diseases of Children, June, 1914, claims priority for a new diagnostic sign in chorea consisting in a pretty constant voice change of rise in pitch and increase in intensity accompanying choreic movements. This is demonstrated graphically by the kymograph which records changes in the air pressure and vocal cord vibrations. He proves from the literature that this is an entirely new method and the first one in which a recording apparatus was used.—C. G. L-W.

Observations on the Physiological Anatomy of the Infant's Stomach Noted in the Course of the Use of a Balloon-Duodenal Catheter. Hess, in the American Journal of Diseases of Children, June, 1914, describes a new instrument which he calls the duodenal balloon catheter, by means of which he proves that the gastric canal (Magenstrasse of Waldeyer) of the infant is much more nearly a vertical street, or path, than a horizontal one, and illustrates this by Röntgen pictures, though the stomach of the infant lies horizontally. With this instrument he has also been able to produce cardiospasm, which he thinks may be due to increased pressure within the gastric cavity.—C. G. L-W.

The Metabolism in Osteogenesis Imperfecta with Special Reference to Calcium. Bookman, in the American Journal of Diseases of Children, June, 1914, reports a case from the service of Koplik at the Mount Sinai Hospital, in an infant of 10 weeks in whom the metabolism experiment, the two periods of which extended over six days, each seemed to prove that the calcium retention was below the normal, and that variations in the course of the disease caused changes in the cal-

cium balance, also that the administration of phosphorus in cod liver oil, and especially of calcium lactate acted favorably.—C. G. L-W.

Recent Progress in Infant Welfare Work. van Ingen, in the American Journal of Diseases of Children, June, 1914, gives a survey of this work at home and abroad which should be widely read by everybody, not physicians only, as we can tell by comparing our work with that of others if we are doing our full duty towards the most helpless part of humanity. It will act as a guide for anybody who wants to engage in these meritorious activities.—C. G. L-W.

Pneumococcic Meningitis and Meningismus. Huber, in Archives of Pediatrics, May, 1914, reports four cases of pneumonia with well-marked cerebral symptoms with coma, the cerebrospinal fluid being free from bacteria.—C. G. L-W.

A Case of Gaucher's Disease in a Boy Thirteen Years of Age. Splenectomy with Recovery. Herman, Roth and Bernstein bring in Archives of Pediatrics, May, 1914, a case of Gaucher's disease which recovered after operation, this being the ninth operative case and the sixth recovery after splenectomy.

C. G. L-W.

Care of the Newborn. Leo-Wolf in Archives of Pediatrics, May, 1914, urges careful regulation of the feeding of newborn, and is an adherent of the four hour intervals. In the hospitals the newborn should be placed under the pediatric service from the first. The bath and the handling of the newborn should be done aseptically, and the mouth should never be wiped out. A new and modern book on the care of infants is needed.

New Remedies of 1913

Acid Atropinesulphuric—Colorless prisms. **Sol.:** Easily in hot, difficultly in cold, water; also in diluted ammonia and diluted in acids; insoluble in organic solvents.—**Melt.:** 238° to 239° C.—**Uses:** To suppress salivation occurring during ether narcosis.

Acitrin—Ethyl Phenyleinchoninate. Yellowish, odorless, tasteless powder.—**Sol.:** Easily in organic solvents; difficultly in water.—**Uric-acid Eliminant.**—**Uses:** Gout, sciatica, and nerve disorders.—**Dose:** 0.5 to 1 Gm.

Adigan—A digitalis preparation which has been freed from digitonin and other saponin-like constituents by treatment with cholesterin. Said to be very effective while free from toxicity.

Agobilin—A remedy for biliary calculi marketed in the form

- of tablets each containing 0.088 Gm. strontium cholate, 0.032 Gm. strontium salicylate, and 0.04 Gm. phenolphthalein diacetate.—**Dose:** 2 tablets morning and evening.
- Aguma**—A nutrient preparation made from the soja bean.
- Aluminum Formaldehyde Silicate**—See Dreiaform.
- Aminoacetparaphenetidincaffeine Hydro-bromide**—See Keph-alidon.
- Amylene Hydrate Isovalerate**—See Valamin.
- Anovarhyreoidin**—A serum from the blood of sheep from which the thyroid glands and ovaries have been removed.
Uses: Osteomalacia, rachitis, etc.—**Dose:** Subcutaneously, 5 to 10 C.C. at intervals of 3 to 5 days.
- Antiluetin**—Potassium-Ammonium Antimonyl Bitartrate.—Antisymphilitic.—**Dose:** 1 to 2 C.C. of a 2.5% solution, subcutaneously. For man the *dosis therapeutica Sterilisans magna* is stated to be 0.75 Gm.
- Antimalazin**—A serum from ovariectomized sheep, and intended for use in Osteomalacia.
- Argulan**—Mercury Dimethylphenylpyrazolon.—46.8% Hg.—Antisymphilitic.
- Asthmolysin**—A sterile, aqueous solution of suprarenal extract from the infundibular portions of the hypophyses.—**Uses:** In asthma.—**Dose:** by subcutaneous injection, 1.1 C.C. (as marketed in ampuls. equals 0.0008 Gm. hypophysis extract.)
- Bismethylaminotetraminoarsenobenzene**—Sulphur-yellow powder; 26.5% As.—**Sol.:** Slowly but completely in water.—Antisymphilitic, like salvarsan.—**Dose:** 0.25 Gm. by injection.
- Borcholin**—See Enzytol.
- Bornyl Isovalerylglycolate**—See New-Bornyval.
- Brophenin**—Paraphenetidin Bromisovalerylaminoacetate.—White, almost odorless and tasteless powder.—**Sol.:** Very slightly in water.—**Melt:** 157° C.—Febrifuge and Analgesic.—**Uses:** Neuralgia, headache, lancinating pains in tabes, and in pains due to inflammatory conditions.—**Dose:** 0.5 to 1.5 Gm.
- Calcium Acetylparacresotinate**—See Ervasin-Calcium.
- Calcium-Casein**—See Larosan.
- Calcium Chloride-Gelatin**—See Kalzine.
- Calotropis Procera**—Mudar; Madar.—An evergreen shrub, the leaves and stems of which yield a milky juice which contains a substance having a digitalis-like action.
- Casein-Calcium**—See Larosan.
- Caviblen Pencils**—See Uranoblen.
- Chelinidin**—A turtle-tuberculin made like Koch's old-tuberculin.—A blackish-brown thick liquid.—**Uses:** For cure and immunization of tuberculous subjects.
- Chelinisal**—A suspension in physiological salt solution, of

turtle bacilli rendered avirulent by repeated passage through animals. The preparation is injected intramuscularly for the cure and immunizing of tuberculous subjects.

Choleval—A 2% solution of colloidal silver with 7.5% sodium glycocholate added as a protective colloid.—**Uses:** As urethral injection in gonorrhea.

Choline Borate—See Enzytol.

Coagulin—Thrombozyme from animal blood platelets.—**Sol.:** Alcohol, chloroform, water and physiological salt solution.

Uses: To check hemorrhage.

Coagulose—A blood coagulant obtained by precipitating horse serum.—**Uses:** Hemophilia, hemorrhage, etc.

Coeliacin—An extract of the mesenteric glands, and marketed in tablets of 0.3 Gm. each (equals 0.3 Gm. fresh gland).—

Uses: Scleroderma.—**Dose:** 0.3 Gm. once or twice daily.

Colloidal Arsenic Trisulphide—See Thiarsol.

Colloidal Cupric Hydroxide—See Cuprase.

Colloidal Iron—See Electromartiol.

Colloidal Palladium Hydroxide—See Leptynol.

Colloidal Rhodium A.—See Lantol.

Colloidal Selenium—See Electroselenium.

Colloidal Sulphur—See Sulfidal.

Copper Hydroxide, Colloidal—See Cuprase.

Cordalen—A digitoxin preparation each C.C. of which contains 0.00033 Gm. of the substance.—**Dose:** 1 C.C. subcutaneously.

Cuprase—Colloidal cupric hydroxide, marketed in ampuls of 5 C.C. each, and intended for subcutaneous injection in cancer.

Cymarin—New Apocynamarin.—Crystalline principle from Apocynum cannabinum.—Colorless prisms.—**Sol.:** Difficultly in cold water, but easily in hot water and the usual organic solvents.—Diuretic.—**Uses:** As of digitalis.—**Dose:** 0.3 Mgm. (in tablet form); also intravenously in solution, 0.025 to 0.1 Mgm.

Digimorval—A digitalis, morphine, and valerian preparation intended for use in cardiac and circulatory disturbances, restlessness, insomnia, pains, etc., as well as coughs, pain in the chest, bronchitis, pleuritis, intestinal pains, and cholelithiasis. Marketed in tablets of 0.005 Gm. morphine, 0.05 Gm. powdered digitalis, and 3 drops menthol valerate, each.

Dihydrocodeine—See Paracodin.

Dioxyanthroquinone—See Istizin.

Doramad—Thorium-X for internal use as waters and injections in pernicious anemia, leucemia, angry ulcers, cancer, etc.

Doriform—Tetrabromopyrocatechol Bismuth. — Greenish-yellow, odorless powder.—**Uses:** As of iodoform, in nasal cases, otitis media, tuberculous glands, etc.—Applied in oily or glycerinic 0.05% emulsion as spray or paint.

- Dreiaform**—Formaldèhyde Aluminum Silicate.—Fine white powder.—**Uses:** As dusting powder on wounds, to render these sterile.
- Elarson**—Strontium behenolate, with chlorine and arsenic in peculiar combination.—Almost colorless, tasteless powder.—**Sol.:** Difficulty in alcohol, ether, and olive oil, insoluble in water.—**Uses:** Anemia, chlorosis, chorea, Basedow's disease, tuberculosis.—**Dose:** 1 tablet (equal to 0.0005 Gm. As equal to 1 drop Fowler's solution.)
- Electromartiol**—Colloidal iron obtained by electrolysis.—Marketed in granules, and in solution in ampuls.
- Electroselenium**—A colloidal selenium in the form of minute, coral-red grains obtained by electrolysis.—**Uses:** In cancer, by hypodermic or intravenous injection of a 2:100000 suspension.
- Enzytol**—Borcholin.—A choline borate which exerts an action in the system similar to that of the therapeutically active rays.—**Uses:** As bactericide in tuberculosis.—**Dose:** Intravenously, 0.01 to 0.25 Gm. in 10% solution.
- Ervasin-Calcium**—Calcium Acetylparacresotinate.—**Uses:** As of ervasin.
- Ethyl Phenylcinchoninate**—See Acitrin.
- Extractum Ovariale**—See Glanduovin.
- Folliculin**—A fluid extract of Tinnevelly senna pods, 1 Gm. representing 1 Gm. of the pods.—**Dose:** 1 to 3 teaspoonfuls per day.
- Formaldehyde Aluminum Silicate**—See Dreiaform.
- Galyl**—"1116"; Tetroxydiphosphaminodiarsenobenzene.—Yellowish to grayish-yellow powder.—Antisymphilitic.—**Uses:** Syphilis, trypanosomiasis, etc.—**Dose:** By intramuscular injection of an oily suspension of 0.3 Gm. per C.C., two injections of 0.5 C.C. each being made into the lumbar region on either side. Intravenous injections may also be given using an aqueous solution of 0.45 to 0.65 Gm.
- Glanduitrin**—A hypophysis extract, each C.C. of which contains the extractive matter of 0.2 Gm. of the infundibular portion of fresh hypophysis.—**Uses:** Subcutaneously and intramuscularly in inadequate labor pains.
- Glanduovin:** Extractum Ovariale.—An albumen-free ovarian extract.—Clear, light-yellow liquid, supplied in ampuls. 1.1 C.C. of the liquid equals 1 Gm. ovarian substance.—**Dose:** 2.2 C.C. subcutaneously.
- Glycerol Monoiodohydrin**—See Iodosapol.
- Glykobrom**—White, amorphous tasteless powder.—**Sol.:** Easily in ether and chloroform, difficultly in alcohol, and insoluble in water.—**Uses:** Where a prolonged bromine effect is desired.
- Grotan**—Sodium Parachlormetacresol. — Disinfectant.—Mar-

keted in tablets of 1 Gm. each and rapidly soluble in water. Used in 0.5% solution.

Hemanthine—An alkaloid from *Haemanthus toxicarius*, and closely related, chemically and therapeutically, to the tropeine series.

Hygralon—A mercury-potash soap containing 30% Hg. and intended for the "colorless" inunction treatment.

Hypophysin—A 1:1000 solution of the sulphate of an active base obtained from the hypophysis.—**Uses**: Intramuscularly to promote uterine contractions.

Igebin—Tablets said to consist chiefly of "dimethylaminophenyl dimethylpyrazolon with a cinchona alkaloid and the active principle of Kola nut."—**Uses**: Influenza, colds, fever, neuralgia, headache, and articular rheumatism, and to prevent seasickness.

Iodosapol—Glycerol Monoiodohydrin.—A guaiacol compound used as an antiseptic dressing and for disinfecting the hands and surgical instruments, either undiluted or in 1:4 solution.

Iodtriferrin—Iron Paranucleinate.—Reddish-brown powder.—**Sol.**: Easily in diluted alkalis and concentrated acids; insoluble in water and diluted acids.—**Uses**: Anemia, scrofula, etc.—**Dose**: 0.2 Gm.

Iron Paranucleinate—See Iodtriferrin.

Istizin—Dioxyanthraquinone.—Gold or orange-yellow leaflets, or orange-yellow powder.—**Sol.**: Difficultly in usual organic solvents, but more easily in hot glacial acetic acid.—**Cathartic**.—**Dose**: 0.1 to 0.5 Gm.; usual average dose 0.3 Gm.

Kalzine—Calcium chloride-gelatin, containing 5% calcium chloride and 10% gelatin.—**Uses**: subcutaneously in hemorrhagic diathesis, hemorrhage of the internal organs, recurrent exudative pleuritis, Basedow's disease, and bronchial asthma.

Kephalidon — Aminoacetparaphenetidinecaffeine Hydrobromide.—White, bitter, crystalline powder.—**Sol.**: Slowly in cold, more easily in hot water, and in alcohol.—**Melt.**: 192° C.—**Uses**: Migraine, neurasthenia, lancinating pains and headaches.—**Dose**: 0.3 Gm. single; 1.5 Gm. per day.

Kinazyme—An active extract of spleen with the pancreatic enzymes.—**Uses**: To increase digestion, nutrition, and leucocytosis.

Kresophine—A coal-tar derivative.—Reddish-brown liquid, easily mixable with all organic solvents.—**Uses**: As of other coal-tar products.

Lantol—Colloidal Dhodium A.—Marketed in 1:1000 solution in ampuls, and in keratinized capsules, and intended for use in cancer and septic diseases.

Laorsan—Casein-Calcium.—Fine, white, tasteless powder.—**Sol.**: Hot milk.

Laudanon—Combination of various opium alkaloids, and intended for use instead of opium. Marketed in ampuls of 1 C.C. each, and containing:

	Laudanon I.	Laudanon II.
Morphine	0.01 Gm.	0.01 Gm.
Codeine	0.001 Gm.	0.001 Gm.
Papaverine	0.002 Gm.	0.0001 Gm.
Thebaine	0.0005 Gm.	0.0005 Gm.
Narceine	0.0005 Gm.	0.0001 Gm.
Narcotine		0.001 Gm.

Leptynol—Colloidal Palladous Hydroxide.—Described as “a colloidal solution of wool fat-palladous hydroxide in liquid paraffin, containing 2.5% Pd as Pd (OH)²; 1 C.C. equals 25 Mgm. Pd.”—**Uses:** In obesity.—**Dose:** 2 C.C. deeply injected into abdominal fat.

Leukozon—A mixture of approximately equal parts calcium perborate and talcum.—**Uses:** Disinfectant dusting powder either pure or mixed with other remedies.

Ludyl—“1151”; **Phenyldisulphaminotetroxydiaminoarsenobenzene**.—Yellowish or grayish yellow powder.—**Uses and Doses:** As of Galyl (which see).

Madar—See *Calotropis Procera*.

Menthol Acetylsalicylate—See *Menthospirin*.

Menthospirin—**Menthol Acetylsalicylate**.—Viscid, light-yellow liquid, marketed in pearls of 0.25 Gm. each.—**Uses:** Acute laryngitis, frontal headache, earache, coryza, etc.—**Dose:** 2 to 3 pearls 2 to 3 times daily.

Mercury Dimethylphenylpyrazolon—See *Argulan*.

Merlusan—A mercury-albumen compound.—**Sol.:** Alkalies; insoluble in acids.—**Antisymphilitic.**—**Uses:** Syphilis, and particularly in gonorrhea in alteration with other remedies.

Metarsan—An organic arsenic preparation intended for subcutaneous use instead of salvarsan or neosalvarsan in contagious pleuro-pneumonia in horses.

Mudar—See *Calotropis Procera*.

Narkodeon—Pastilles each of which contains 0.001 Gm. narcotine hydrochloride and 0.005 Gm. codein hydrochloride, with tolu and compound acacia powder. Used in catarrh of the respiratory passages.

Neolysol—A fluid, odorless chloreresol preparation.—**Uses:** Antiseptic and deodorant like lysol.

Neurokardin—A solution of the therapeutically active resins from the rhizome of one of the piperaceae.—**Uses:** Nervous headaches, neurasthenia, hysteria, heart diseases, arteriosclerosis.

New Apocynamarin—See *Cymarin*.

New-Bornylval—Bornyl Isovalerylglycolate.—Colorless, almost odorless and tasteless liquid.—**Sol.:** Easily in alcohol, ether,

benzene, and oils; insoluble in water.—Sedative and Nervine.
Uses: Excitement of all kinds, in debility and collapse, neuroses, and disturbances of the circulatory digestive, and central nervous system.—**Dose:** 1 to 3 pearls (each 0.25 Gm.) 2 to 4 times daily.

Novocolchinin—A mixture of 60 parts quinine sulphate and 40 parts novocol (sodium guaiacolphosphate).—**Sol.:** Easily in water and milk.—**Uses:** Whooping cough in children.
Dose: 1 to 3 tablets (in which form marketed).

“1116”—See Galyl.

Paracodin—Dihydrocodeine—Marketed as hydrochloride and tartrate, both of which are used like codeine for checking coughs, etc.—**Dose:** .002 to 0.05 Gm.

Paraiodorthosulpho-oxycylohexatrienpydridine.—See Yatren.

Paraphenetidin Bromisovalerylaminacetate.—See Brophenin.

Perborax—A compound of sodium polyborate and perborate. About 4% active oxygen.—**Uses:** As of sodium perborate

Perhydrit—A urea-perhydrol compound.—White powder.—**Sol.:** 2.5 water.—**Uses:** As of hydrogen peroxide.

Phenyldisulphaminotetroxydiaminoarsenobenzene—See Ludyl.

Pinosol—A tar product.—Yellow to brownish, honey-like liquid, of mild empyreumatic odor and taste at first oily and aromatic and finally bitterish and pungent.—**Misc.:** Fatty and volatile oils, fats, petrolatum, and wool fat; affords emulsion with dilute alkaline solutions; insoluble in water.
Uses: Instead of tar and empyreumatic oil of birch.

Polygonum Hydropiper—Water Pepper.—Used in form of fluid extract in hemoptysis, and in vesical, gastric, and hemorrhoidal hemorrhage.—**Dose:** 30 to 40 drops three times daily.

Potassium-Ammonium Antimonyl Bitartrate.—See Antilueticin.

Rademanit—A radium-charcoal preparation possessing a decided radioactivity.—**Uses:** Cancer.

Resaldol—Resorcinolbenzoylcarboxylic-acid Ethylester—Light yellow crystals, very slightly soluble in water.—**Melt.:** 134° C.—**Uses:** Dysentery.

Resorcinolbenzoylcarboxylic-acid Ethylester—See Resaldol.

Rhodium A, Colloidal—See Lantol.

Riopan—A concentrated preparation made from Rio ipecac, and containing the hydrochlorides of the ipecac alkaloids to the extent of 50%. 1 Riopan equals 20 ipecac.—Brownish powder soluble in water.—Marketed in tablets (each 0.001 Gm.) ipecac alkaloids equal 0.015 Gm. ipecac.

Romanxan—A nutrient said to consist of the protalbumoses of milk albumen, metaphosphoric acid, and iron salts.—**Uses:** nutritional disturbances, convalescence from disease, etc.—

Dose: 10 to 12 Gm. per day. May also be given in enema.

“Stable” **Scopolamine**—A scopolamine solution rendered

stable by the addition of 10% mannit, and marketed in ampuls containing respectively 0.0003 Gm., 0.0005 Gm. and 0.001 Gm. Scopolamine hydrobromide per C.C.

Secretogen—A combination of the gastric (pyloric) and pancreatic (duodenal) secretions.—**Uses:** To control digestive insufficiencies.

Sennatin—A fluid preparation from senna leaves.—Dark, clear, stable liquid.—**Uses:** Constipation.—**Dose:** 1 to 3 Gm. internally; also given subcutaneously and intramuscularly.

Sennax—A purgative glucoside obtained from senna leaves, and marketed as a lactose trituration.—**Dose:** 1 table, or 4 C.C. solution (in which form supplied) each equals 0.75 Gm. glucoside.

Skiargan—A sterile collargol solution containing 9% Ag.

Sodium Parfachlormetacresol—See Grotan.

Solargyl—A compound of silver oxide with proteoses and their cleavage products.—Odorless leaflets of blue, metallic luster.

Sol.: Easily in cold water and in glycerin; insoluble in absolute alcohol, ether, chloroform, and carbon disulphide.

Sulfidal—Sulfoid; colloidal Sulphur.—Grayish white powder insoluble in the usual solvents.—**Uses:** As of sulphur externally, either in powder, or in 10% soaps, ointments, etc.

Sulfoid—See Sulfidal.

Tenosin—A combination of betamidoazolthylamine and paroxyphenylethylamine, the active constituents of ergot.—Colorless, sterile liquid.—**Use:** Uterine tonic and styptic in obstetrics.—**Dose:** 1 C.C. of solution (as marketed).

Terpacid—Fenchone from fenchyl alcohol.—Colorless, mobile liquid; camphoraceous, bitter taste.—**Sol.:** Most organic solvents.—**Uses:** Gout, rheumatism, neuralgia.

Tetrabromopyrecatechol Bismuth—See Doriform.

Tetroxydiphosphaminodiarsenoberzene—See Galyl.

Theoform—Condensation product of Tribromine with substances splitting off formaldehyde.—white, very bitter powder.—**Sol.:** 50 water.—diuretic.—**Dose:** 1 Gm.

Thiarsol—Colloidal Arsenic Trisulphide.—Supplied in sterilized tubes and in solution.

Trien—See Yatren.

Tryen—See Yatren.

Uranoblen—A silver-uranine compound. 40% Ag.—Reddish-brown powder soluble in water.—Bactericide.—**Uses:** In gonorrhea, in the form of urethral bougies, named "caviblen pencils.

Valamin—Amylene Dydrate Isovalerate.—Colorless, neutral liquid; valerian odor and taste.—**Misc.:** All proportions with oils, very slightly soluble in water.—**Uses:** As sedative in all cases where valerian is indicated.—**Dose:** 0.25 Gm.; in mild nervous insomnia, 0.5 Gm.

Water Pepper—See Polygonum Hydropiper.

Yatren—Tryen, Trien; Paraiodorthosulpho-exycyclohexatrien. pyridine.—Yellow, odorless powder.—**Sol.**: Hot water.—Bactericide.—**Uses**: 10 to 20% solution, also as dusting powder for wounds.

Yohydrol—New name for yohimbine hydrochloride.

ANNOUNCEMENTS AND CORRECTIONS

As a matter of convenience, it has been decided to establish a department of this nature, at the end of each issue, as necessary.

Paul B. Hoeber asks us to correct the price of the two booklets by Sir Wm. Osler as stated in Book Reviews, page 713, June issue. The price is \$1.00, not \$1.50.

The full report of the Commencement Exercises and Alumni meeting of the University of Buffalo, which we expected to publish in this issue, has been delayed, by various demands on the time of the Committee. As it is desired to present the report in full, it has been deemed wise not to anticipate it by the publication of an incomplete report. It is expected that the Harrington Lectures by Prof. Ludwig Pick will also be published in this Journal, probably beginning in the September issue.

Original articles for the August and September issues are already arranged and partly printed. Intending contributors are requested, in order to secure prompt publication, to send in articles as soon as possible. Brief articles, requiring early publication to secure priority or for other reasons, can usually be printed in the next month's issue, if received by the fifth of any month.

Contributors should bear in mind that it is contrary to the policy of this Journal to publish "addresses" unless these are, at the same time, papers on practical medical subjects. Brief notes on strictly historic matters and discussions of live professional issues, not too polemic and not too long, are not included in this exclusion.

We are going to ask our subscribers to increase their subscription to this extent: We would like each subscriber, on the average, to send in one personal or other news item, every year; to read the advertising section thoroughly at least once every three months; to turn over one copy of the Journal to a non-subscriber, once a year. These may seem like trivial requests and it may be asked why, if we are asking favors at all, we do not ask something more. Because, by actual calculation, this amount of co-operation is all that is necessary to put the Journal on the highest level of efficiency and excellence for the purpose which it seeks to fulfill.

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Heart Weakness

Hardly any of the patients who consult the general practitioner give him more worry and trouble than those who come to him complaining of "heart weakness." Careful examination, while disclosing no organic lesion, almost always shows varying degrees of functional disturbance. Palpitation, arrhymia, precordial pain, dyspnea, and a wide variety of other symptoms are present most of the time to keep the patient in a state of constant apprehension.

How difficult it usually is to give these heart sufferers complete and permanent relief is only too well known by physicians who are constantly meeting such cases. Obviously, at the very outset, it is essential to remove all contributory causes as completely as possible. The digestive and eliminative functions call for appropriate treatment, and especial attention should be directed to the diet. Bad habits, such as excessive indulgence in alcoholic beverages, tea, coffee, tobacco, or narcotic drugs, must be corrected and a patient's whole manner of living placed on as nearly normal basis as possible.

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Hay Fever: "Disease of Mystery"

Dr. S. Fuller Hogsett of Pittsburgh, in his excellent paper, "An Experimental Therapy in Hay Fever," read at a meeting of the University of Pittsburgh Medical Society, and published in the April (1913) issue of *American Medicine*, New York, points to some interesting facts respecting this "disease of mystery," as he not inaptly refers to it. "As far back as the year 1565," says the doctor, "Botallus reported a case. Again, in 1673, Von Halmont, and in 1698 Floyer, of London, called attention to this condition. In Good's 'Study of Medicine' there is reference to a case related by Timaeus in 1667 of an attack of asthmatic nature caused by the odor of roses and ipecac."

Thus it will be seen that hay fever, instead of being a disease of modern origin, as many may have presumed, is in reality centuries old.

Discussing the problems of etiology and treatment, Dr. Hogsett continues: "Many theories have been elaborated, and many forms of treatment have been called to the attention of the medical profession. A strain of pessimism regarding the possibility of a cure in this condition appears in the writings of many authors. No one theory accounts for all features of the affection and the many etiological factors."

In 1912 Dr. Hogsett treated a number of cases successfully with Mixed Infection Phylacogen. His observations as to methods and results are of interest and value. "In carrying out the Phylacogen treatment," he says, "I have found that the initial dose should be small when given either subcutaneously or intravenously. It has been my procedure to begin with a 2 c.c. dose subcutaneously or one-half c.c. intravenously. . . . In giving the subcutaneous injection I usually select the insertion of the deltoid or the area just below the scapulae. The latter seems to be the ideal spot, as absorption takes place very readily and the complaints from the local reaction are much less. I repeat my injection either daily or on alternate days, the interval to be determined by the clinical condition of the patient. It is seldom necessary to give more than four to six injections, the symptoms often disappearing after the second or third injection. Almost immediate relief is noted by the patient. The irritating discharges from the eyes and nose are diminished in amount, the sneezing is lessened, the dyspnea is relieved, and the patient usually sleeps comfortably. All cases that I have treated successfully have remained well through the season. I have yet to record only one failure, but I have not had a sufficient number of this class of cases as yet to warrant a positive claim that this remedy will act in all forms of the disease."

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(Continued from page 24.)

and the opportunities for its employment were necessarily limited. The next two months will undoubtedly tell the story of its applicability to this hitherto intractable disease, and the results of a more extended trial will be watched with a deal of interest.

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Functional Disturbances of the Liver

When one stops to think of the work the liver is called upon to do in the human economy and the excessive burden so frequently placed upon it by errors of diet, faulty methods of living, etc., it is really surprising that this great organ—the largest gland of the body—does not become deranged more often than it does.

Clinical study has shown, however, that the liver is much more subject to functional disturbance than is generally realized. The opinion has been growing for some time, therefore, that not a few obscure conditions of the intestines, particularly those grouped under the term “auto-intoxication,” should be attributed to sluggishness or torpidity of the liver processes.

In view of this there is an increasing demand for a cholagogue that can be relied upon to stimulate the functional activity of the liver without at the same time producing a degree of catharsis that is neither necessary nor desired. Many and various are the drugs that have been tested with this in view, but practically the only one that has met the situation is that long known and widely used preparation of *Chionanthus Virginica*, *Chionia*.

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Autumnal Ailments

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The After Care of Children's Ills

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An Important Report

By Professor W. A. Puckner

Secretary of the Council on Pharmacy and Chemistry
American Medical Association

In the Journal of the American Medical Association, September 13, 1913. Professor Puckner reports the result of the investigation of products of a number of pharmaceutical houses. In this report are embodied the results obtained by Dr. R. A. Hatcher of Cornell University Medical School, who made a special examination of the various digitalis products of these pharmaceutical houses, demonstrating the following

FACTS

FIRST—That commercial digitalis preparations vary most widely in activity.

SECOND—That Mulford Digitalis, the most active, is four times as active as the weakest.

THIRD—That the digitalis prepared by other firms, assumed to be physiologically assayed, showed a variation of more than 100 per cent. in strength.

FOURTH—That the digitalis next in strength to the Mulford preparation, was only 65 per cent., and the weakest, 29 per cent. in activity.

CONCLUSIONS

While there is no official standard of activity for digitalis, Dr. Hatcher adopted the Mulford Fluidextract Digitalis as the standard of comparison, because its activity was that of a good digitalis. The report proves the activity and reliability of the Mulford Digitalis, and coincides with the former report made by the United States Bureau of Hygiene, tabulated in Bulletin No. 48, December, 1908, by Edmunds and Hale, relating to the Mulford Fat-free Tincture of Digitalis—DIGITOL.

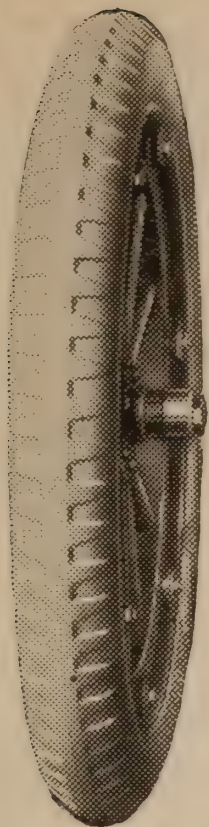
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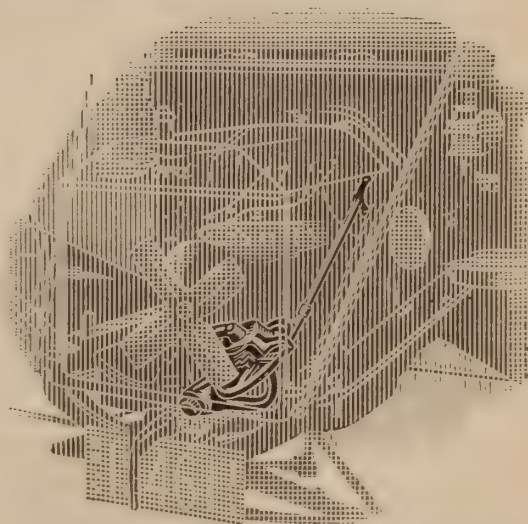
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Literature on application

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W. F. Braasch of the Mayo Clinic, St. Mary's Hospital, Rochester, Minn., who was the first to extensively apply Voelcker and Von Lichtenberg's technique in the United States, and has introduced many valuable modifications and diagnostic possibilities of the same, states in an article on "Recent Progress in Uretero-Pyelography" (*Journal Mich. State Med. Soc.*, April, 1913), that this technique has been employed in the Mayo Clinic in more than one thousand cases without fatality or permanent injury. The occasionally observed colic following examination by this method was not more frequent nor more severe than after ureteral catheterization alone.

It has been his experience that severe reaction following pyelography is usually the result of errors in technique or lack of care in the selection of the cases. In regard to the latter, careful perusal of Dr. Braasch's article is strongly recommended to all

(Continued on page 28.)

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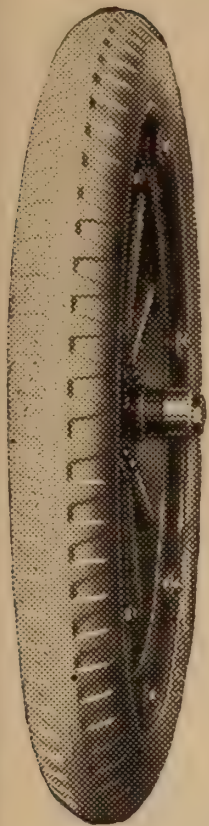
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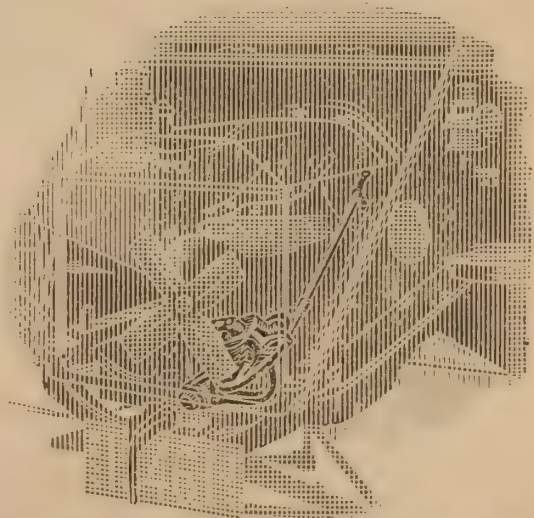
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Literature on application

(Continued from page 25.)

those interested, a short abstract being inadequate to do justice to this part of his report.

The following technical precautions are urged by him:

The Collargolum crystals should be carefully ground in a mortar when put into solution (10 per cent.) and the latter filtered, otherwise undissolved crystals may be deposited on the walls of the pelvis and ureter and act as an irritant. The solution should be carefully warmed before injecting, not boiled, since it coagulates with boiling. The solution should be injected by the gravity method, watching the patient for the slightest evidence of pain. From 2 to the injected solution should be so arranged that there will be no delay after the catheter is inserted.

The unequalled diagnostic value of skiagraphy and ureteropyelography by means of Collargolum and the innocuousness of the method if carried out correctly, is also vouched for by Dr. George H. Stover, Prof. of Roentgenology, University of Colorado (Annals of Surgery, June, 1913); Dr. G. Strassmann of the Surgeon Polyclinic of Prof. F. Voelcker, Heidelberg, Germany, Prof. Th. Hogier and Dr. J. Reynard of the University of Lyons (*Lyon Medical*, 1912, No. 51); Dr. William I. Bruce, Radiologist to the Charing Cross and the Children's Hospital, London (*British Medical Journal*, October 14, 1911); Dr. Wil-

(Continued on page 35.)

(Continued from page 28.)

liam T. Belfield, Prof. of Genito-Urinary Surgery, Rush Medical College (*Journ. A. M. A.*, March 15, 1912), Dr. Lewis G. Cole, Clinical Professor of Radiology, New York Post Graduate Hospital (*The Post Graduate*, January, 1911); Dr. N. Nemenow, Chief of Central Roentgen Laboratory, St. Petersburg Medical High School for Women (*Fortschr. auf dem Geb. d. Roentgenstrahlen*, Vol. 18, No. 3), and by a constantly growing number of other reports from nearly every civilized country.

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(Continued on page 37.)

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(Continued from page 35.)

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Water, sufficient to make,	-	-	16 fluidounces
Average dose, 6 H. T. U's or 1 Cc. (15 minims)			500 Cc.

This product corresponds to the official tincture excepting that it contains slightly more alcohol.

Note—We commend this physiologically assayed Fluid Extract as being more active and reliable than that prepared by the U. S. P. Eighth Revision menstruum.

Parke, Davis & Co. were the very first to bring before the medical profession standardized Galenicals, and to urge the use of these instead of extractive preparations of such and such a strength of a variable crude drug. Yet as the U. S. P. still adheres to the old Galenic standards, there exists a professional and hence, a trade demand for official preparations, which the firm has met, with due warning. Nature's laboratories are not exact, notoriously so in the digitalis plant. But it is only fair to acknowledge that the assaying of digitalis as well as of certain other drugs still depends upon other natural laboratories which are also inexact. Dr. Puckner's laboratory of standardization, upon which the rating of 57.66% was made, was the cat.

Hatcher states that "The extraordinary uniformity of the action obtainable with ouabain and other digitalis bodies on the cat's heart calls for some comment."

Then in a foot note, "Since writing the preceding statement, which was based on a very large number of experiments covering a period of several years, we have found a number of cats which tolerated doses up to nearly 50 per cent. more than that stated. We are unable as yet to explain this. As previously stated, the only ones which succumb to doses below the standard are the excessively fat. The latter observations do not prevent the use of this method of standardization, but a somewhat larger number of observations are necessary than would be otherwise." In other words, Hatcher's method does not admit of a test of the standard for comparison and implies that it is unnecessary, whereas it has been frankly admitted by pharmacologists that the variability of test animals is too great to permit their use without taking this factor into account.

Edmunds and Hale and various other pharmacologists reject the cat method—see Bulletin No. 48 of the Hygienic Laboratory of the U. S. Public Health Service.

In plain words, Parke, Davis & Co. have been rated in definite percentages according to a method subject to a 50% error, on a preparation for which they explicitly disclaim responsibility. And, in the whole matter of standardization under discussion, they have been the pioneers in advocating and rendering practicable, the supplanting of the old Galenic method to which the U. S. P. adheres.

A Tale of Taka-Diastase.

To multiply by two the medicinal efficacy of a powerful diastasic ferment is a notable accomplishment. And that is what scientific investigation has done for Taka-Diastase. The result, as may be presumed, was not achieved at a single fortunate stroke. It was the culmination of years of study and experimentation. The story is briefly told on another page of this issue of *BUFFALO MEDICAL JOURNAL*, over the signature of Parke, Davis & Co. It bears this caption: "We Have Doubled the Strength of Taka-Diastase." The reader is advised to turn to this announcement, which should prove of interest and value to every practitioner who faces the problem of amylaceous dyspepsia.

A word here with reference to the therapeutic application of Taka-Diastase may not be amiss. The product may be prescribed with advantage in the treatment of any pathological condition in which the salivary digestion is inhibited or impaired—in any case of gastric or intestinal disorder in which the starches are digested with apparent difficulty. It is employed with good results in the dietetic treatment of subacute and chronic gastritis; in infantile diarrhea, especially in cases in which the diarrhea alternates with constipation; in malnutrition or inanition; in the vomiting of pregnancy; in diabetes due to pancreatic disease.

THE RECOVERY FROM LA GRIPPE.

Since the first appearance upon our shores of that unwelcome infectious disease known as La Grippe, the medical journals have been filled with articles advocating different methods of treating the attack itself and its various complications. But little attention, however, has been paid to the important question of how to best treat the convalescent subject. Among all of the acute infections there is probably none that is as likely to leave the patient quite as thoroughly devitalized and generally prostrated, as does a sharp attack of La Grippe. For some reason the degree of prostration from grippal infection appears to be entirely out of proportion to the severity of the attack itself. This peculiarity renders it advisable and usually necessary to strengthen and support the general vitality of the patient during the period of convalescence. Complete rest, nourishing food, plenty of fresh air and stimulation according to indications are, of course, dis-

tinctly important measures. At the same time tonic and hematinic medication should not be neglected. Probably the most generally acceptable and efficient general tonic and hemic reconstituent for such patients is Pepto-Mangan (Gude), a bland, non-irritant and promptly absorbable combination of the organic peptonates of iron and manganese. This efficient blood-builder and reconstructive does not disturb digestion nor induce constipation, and is readily taken by patients of all ages.

To talk about doing without nerve sedatives in cases of hysteria, neurasthenia, insomnia, epilepsy, and disorders of that type, is like talking about doing without fire to warm ourselves. The time may come when we shall be able to make direct use of the sun's rays, and do away with stoves and furnaces and even electric heaters; but not, we think, during the lifetime of the present or even the next generation. So that time may come in the distant future, when we shall not have to sedate these neurotic patients, but it is not yet, and it is not much practical comfort to them to preach to them about that future millenium. What they need just now is a safe and effective sedative; one which will give them the desired rest, and facilitate their recovery, and at the same time, carry with it no danger of habit-slavery. Such a remedy will be found in Neurosine. There is nothing mysterious or quackish about Neurosine; it is composed of tried and standard drugs, put up in elegant and palatable form. The Dios Chemical Company of St. Louis, Mo., will send you samples by mail on request.

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Dr. W. A. Puckner, director of the chemical laboratory of the American Medical Association, investigated a number of the products furnished by twenty different pharmaceutical manufacturers and the degree of accuracy attained by each house was published in the *Journal of American Medical Association*, September 13, 1913.

The results are given in detail and make it possible to summarize or classify them in various ways. For example, the average strength of all the preparations made by each house may be calculated. An objection to this method, however, lies in the fact that the preparations above strength, of any one house, might exactly counterbalance the ones under strength and the house receive thereby a perfect mark.

A more accurate method consists in calculating the average deflection from normal of the preparations of each house, and rank the houses in the contest in the order in which the average deflection is the least.

A third method would consist merely in stating the highest and lowest deviation from standard found in the products of each house.

(Continued on page 29)

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(Continued from page 27)

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The preparations examined, namely- hypodermic tablets mor-
phine sulphate, tablets potassium iodide, solution of potassium
arsenite, fluid extract of hydrastis and fluid extract of digitalis,
should be divided in summarizing results, into two classes. The
first four mentioned are amenable to exact chemical assay and it
is possible, therefore, to determine within a fraction of one per
cent, the exact deviation from standard, or conversely, approach
to perfection of these preparations. Their standards are defi-
nitely fixed, either by the Pharmacopeia or by the manufacturer's
claim—100 per cent of the claimed strength being the target at
which each manufacturer aims.

The other preparation, however, namely, fluid extract digitalis,
is one for which no definite standard of strength has been fixed.
The preparation is official but no assay processes have been pro-
vided by the Pharmacopeia, so that the preparation made in strict
accordance with the U. S. P. directions may vary enormously in
activity. A limited number only of the houses chosen for this

(Continued on page 37)

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(Continued from page 29)

contest make any attempt to standardize digitalis preparations. A few, however, have adopted physiologic methods of assay in an attempt to put on the market preparations of uniform strength.

Even in the absence of a fixed and official standard of strength, it is obvious that a fluid extract of digitalis should have represented in each cubic centimeter, one gram of a good quality of drug.

Dr. R. A. Hatcher, of Cornell University Medical School, who examined the digitalis samples for Dr. Puckner, and made a special study of this drug for a number of years, is the inventor of the process by which these samples were examined, and is fully competent, therefore, to express an opinion as to whether a preparation does represent a digitalis drug of good quality.

Dr. Hatcher's results with the nineteen fluid extracts examined in this contest forced him to the conclusion that THE FLUID EXTRACT OF THE H. K. MULFORD COMPANY FULLY REPRESENTED A DIGITALIS DRUG OF GOOD QUALITY AND THAT THE NEXT IN VALUE ONLY POSSESSED 65.8 PER CENT. OF THE STRENGTH OF THE MULFORD PREPARATION.

The H. K. Mulford Company Fluid Extract Digitalis was therefore taken as the standard, or 100 per cent. The other 18

(Continued on page 39)

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(Continued from page 37)

preparations ranged from 65.8 per cent. down to a minimum of 29.25 per cent.

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To the credit of all the firms, Dr. Puckner states that there was found no evidence of wilful sophistication or adulteration in any product examined. He believes that none of the houses deliberately adulterate or sophisticate their standard drugs, but that the products of many of them are made by those "who are less competent and less skilled than the others. It is the more complimentary to the H. K. Mulford Company, therefore, that it should attain the first place, with those who are doing their best to furnish standard articles. It is an emphatic endorsement of the competence and skill shown by the H. K. Mulford Company, and products of their manufacture.

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The December number of the *Iowa State Medical Journal*, which was devoted entirely to Nervous Diseases, contains a lengthy article, "The Dowd Phosphatic Index." The writer fully elucidates the great value of this simple but scientific test, reporting several cases which bear out his contentions.

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New copy and plates must be delivered to the editor by the 20th of the month preceding date of issue for which they are intended. Otherwise, standing copy will be repeated. While every precaution will be taken to correct errors in proof, no responsibility will be assumed by the Journal for minor errors in the first issue following a change of copy, nor for failure of delivery of copy, plates and directions. Old plates will be held subject to order for three months after discontinuance. After this time they will be destroyed to prevent confusion at printing plant.

THE BUFFALO MEDICAL JOURNAL does not give premiums, but can often secure for its subscribers substantial discounts on books, typewriters, office furniture, firearms, pianos with or without players, and various other articles.

PREFERRED SPACE FOR SALE.—Half inside back cover; quarter page facing advertising index; half page opposite last cover; half page above Table of Contents; half page opposite last page of reading matter.

The Detail Man

Some time ago a medical acquaintance in another town told us that he always made it a point to avoid seeing detail men and to snub them if they did secure an audience with him. He believed that they wasted his, and other practitioners' time, added to the cost of drugs and supplies and should be discouraged. From one standpoint we might consider that detailing, like any other form of advertising, except through periodicals, competed with the interests of this JOURNAL and others, but experience shows that personal contact is necessary in pretty nearly every activity and that a considerate, well informed detail man, whose own time is valuable and who realizes that yours is also, can often give very valuable practical information.

It is a good rule for physicians and others to receive courteously anyone who calls on them though obviously, it is impossible

(Continued on page 22.)

COLEMAN'S

(HUDOR)

Ginger Ale



A MILD STIMULANT you can recommend to your patients with confidence. It's made of Jamaica Ginger Root, pure granulated sugar, pure water, flavored with finest oils of Lemon and Limes, acidulated with citric acid and charged with pure carbonic Gas. No capsicum or other deceptive ingredient. No Preservative.

HUDOR WATER COMPANY
BUFFALO, N. Y.

WHEAT'S ICE CREAM

Properly made ice cream contains remarkable nutritive properties. It contains an admirable balance of heat, energy and muscle producing constituents along with more ash or bone building substance than whole milk contains. These statements are given credence by the fact that a chemical analysis showed 100 parts of Wheat's Ice Cream to contain the following:

Solid matter	34 parts
Proteids (muscle material)	4 parts
Heat and Energy Materials:	
Milk Sugar and Cane Sugar.....	20 parts
Butter Fat	9 parts
Ash (bone material)	9/10 parts

It can readily be seen why many athletes eat ice cream while in training and why the physician recommends it for the sick man.

Wheat's Ice Cream then possesses double merit in that it is not only produced in the most sanitary ice cream plant in the world but it is also highly nutritious.

WHEAT'S ICE CREAM

"Where you see the name" or phone Seneca 1904,
Federal 4191.

(Continued from page 20.)

for any busy man to give up much time to one who has simply his own business to present, which does not interest the one approached, especially if the caller has unlimited leisure. Most men who call on physicians regularly have business which does interest the majority of physicians, even if it appears to be all in the interest of a commercial house. These men are, as a rule, gentlemen, often themselves physicians, and deserving professional or at least ordinary courtesy when they call. Their efficiency will be enormously increased, if you will give them a brief hearing promptly and they will appreciate the necessity of brevity, both for your sake and their own. As they call without invitation, it is a very simple matter to snub them, delight in their discomforture and gloat over your own superiority. This course is so obviously easy that, if you stop to think about it, it shows, not superiority but—let us say not inferiority but low-downness.

If you will just bear in mind the fact that a large proportion of detail men hold medical degrees and ask why, an ulterior object may occur to you if general principles of courtesy are not sufficient, to induce you to give these men a friendly reception. Most of you can think of other physicians, no better educated and apparently no more able or attentive to duty, who are much more successful, simply because chance or relatively greater ability to please and adjust themselves to the demands of patients have made the difference. If this relative difference were a little greater, you might have been very glad to act as agent for a drug house. Most of you have amassed comparatively little capital from your practice. A long illness, a partial disability, a sick wife needing a different climate, anything else necessitating an abandonment of an established practice might make it absolutely necessary for you to take a position which would insure an immediate income. You sometimes merely get sick of the grind and long for travel and feel like throwing up the whole blamed practice. Others have done this, sometimes regretting it afterward, sometimes with permanent satisfaction at the change. In short, this institution of detailing is a sort of insurance to the medical profession, against failure. The premiums are cheap: ordinary courtesy, a little time which, in the long run is more than paid for by practical information and even the actual value of samples.

Since we have the best of authority for "answering a fool according to his folly," it may be allowable to give a very snobbish reason for not being snobbish. The average detail man is quite the equal in education, manners, and income, of the average practitioner, although he would probably agree with you that, on the whole, he would rather be practicing medicine. And, every little while, he happens to be a man of considerable standing in his own community and exceedingly prosperous, but who realizes the necessity of personal attention to details in a literal sense.



4-oz. 50c

Tongaline

Liquid and Tablets

NEW SIZES

For Convenience in Prescribing the Original Package



50 Tablets 50c

Tongaline Liquid—4-oz. bottle 50c—8-oz. bottle \$1.00—5-pt. bottle \$5.50
Tongaline Tablets—Tongaline & Lithia Tablets
Tongaline & Quinine Tablets—Ponca Compound Tablets
Box—50 Tablets 50c Box—100 Tablets \$1.00

AT ALL DRUGGISTS OR SENT PREPAID ON RECEIPT OF PRICE
MELLIER DRUG COMPANY, 2112 LOCUST STREET, ST. LOUIS

Serobacterins or Sensitized Bacterial Vaccines

A DISTINCT ADVANCE IN BACTERIAL THERAPY

BACTERIN or vaccine therapy, carried out by the use of killed bacteria, has now been successfully applied to the prevention and treatment of many infectious diseases. Clinical experience has proven beyond question that these products produce a degree of immunity which enables the person treated to resist infection and which is of great value therapeutically. The length of time required before the immune condition is present and the local and general reactions which sometimes follow the first and occasionally subsequent doses are, however, factors calling for improvement.

To remedy the first of these defects, experiments were made with mixtures of serum and killed bacteria, with the idea that by this means immediate passive immunity could be had, as well as a more permanent active immunity, but this procedure resulted in failure, as only a slight degree of passive immunity was secured and no active immunity whatever. Besredka attributed this failure to the excess of serum present in such mixtures, and for the preparation of his "sensitized vaccine" took advantage of the discovery of Ehrlich and Morgenroth that bacteria mixed with a serum containing specific antibodies unite permanently with such antibodies. After maceration in the immune serum for a sufficient time the sensitized bacteria are recovered by centrifugal-

(Continued on page 27.)

Improved Bacterial Therapy

SEROBACTERINS

(Sensitized Bacterial Vaccines)

"Action **sure, rapid, harmless** and **durable**."—A. Besredka.

Serobacterins are suspensions of bacteria "sensitized" by treatment with specific immune serum.

The advantages of **Serobacterins** may be briefly summarized as follows :

1. SEROBACTERINS do not cause opsonic nor clinical negative phase. In the process of sensitization the bacteria are saturated with the specific antibodies, consequently they do not absorb antibodies from the patient, preventing unfavorable reactions or the so-called negative phase.

2. SEROBACTERINS produce immediate active immunity.

(24 hours after the first injection an effective immunity is present and marked improvement is usually noted in the condition of the patient.)

This rapid action makes them invaluable in treatment and in preventive immunization. This is of great importance in controlling or preventing epidemics.

3. SEROBACTERINS cause no local or general reactions.

(These reactions constituted the principal undesirable feature of the Bacterial Vaccines.)

4. SEROBACTERINS produce a highly efficient and durable Immunity.

The following **SEROBACTERINS** are supplied in the popular Mulford Aseptic Glass Bacterin Syringe, ready for instant use.

Staphylo-Serobacterin. (Sensitized Staphylococcic Vaccine.)

Strepto-Serobacterin Polyvalent. (Sensitized Streptococcic Vaccine.)

Scarlatina Strepto-Serobacterin. (Sensitized Streptococcic Vaccine Scarlatinal.)

Typho-Serobacterin. (Sensitized Typhoid Vaccine.)

Packages of 4 syringes . . . \$4.00

Single syringes . . . 1.50

Each syringe one dose.

For a complete review of the literature on Serobacterins, see Mulford Digest for December.

H. K. MULFORD COMPANY

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POLK'S MEDICAL REGISTER AND DIRECTORY ..OF.. NORTH AMERICA.

ESTABLISHED 1886.

Do Not Be Deceived By Imitators.

See that the name **R. L. POLK & CO.**
IS ON THE ORDER BEFORE YOU
SIGN IT.

POLK'S is the only complete Medical Directory.
POLK'S is the only Medical Directory having an
official record of all Graduates of the North Am-
erican Medical Colleges for use in its compilation.
POLK'S has stood the crucial test of criticism
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For
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DYSMENORRHEA
MENORRHAGIA
METRORRHAGIA
ETC.**

ERGOAPIOL (Smith) is supplied only in
packages containing twenty capsules.

DOSE: One to two capsules three
or four times a day. < < <

SAMPLES and LITERATURE
SENT ON REQUEST.

MARTIN H. SMITH COMPANY, New York, N.Y., U.S.A.

(Continued from page 25.)

ization. The bacteria, with their antibodies attached, are then washed in the centrifuge with physiological saline solution until all traces of serum are removed. Careful complement fixation and animal tests are employed to make sure that proper sensitization has taken place, and finally the bacteria are made up into standardized suspensions for administration. Since the value of serobacterins depends on thorough sensitization, and the complement fixation test proves the extent to which this has taken place, this test constitutes a vital part of the technic.

Besredka claims that sensitized bacterial vaccines or "serobacterins" possess a great advantage over the bacterial vaccines now in common use, in that their action is far more rapid, and they produce no clinical or opsonic negative phase, and no local or general reactions. His researches have been confirmed by such prominent investigators as Marie, Remlinger, Dopter, Theobald Smith, Metchnikoff, Gordon and others, all of whom found that sensitization of bacteria confers upon them new properties which render them highly effective as vaccines, free from the defects of the ordinary bacterial vaccine and "possessing an action which is *certain, inoffensive, rapid and lasting.*"

A large number of favorable reports have appeared on the value of serobacterins in the preventive and curative treatment

(Continued on page 35.)

McCaffrey's Pharmacy

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and Riverside Ave.

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CHESCARA COMPOUND

A palatable, non-toxic preparation for the treatment of Whooping Cough, Asthma, Bronchitis, Croup and other diseases of the respiratory tract.

Alcohol 8%

Each drachm contains 10 minims of fluid extract of castanea and three of cascara, with thyme and aromatics.

HENRY D. DEUCHLER

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KELLER'S PHARMACY

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Buffalo, N. Y.

PRESCRIPTIONS A SPECIALTY

Both Phones

DOWD'S PHOSPHORUS TONIC

A POWERFUL NERVE AND SYSTEMIC TONIC CONTAINING PHOSPHORUS IN ITS FREE STATE

Used and recommended by some of the most EMINENT MEN IN THE PROFESSION, also many of the LEADING HOSPITALS AND SANITARIUMS in Buffalo and elsewhere.

It is specially recommended in ALL NEUROTIC CONDITIONS in which reported results have been marvelous. Dose—20 to 30 drops three times daily in milk.

As a general tonic or reconstructive agent one ounce equals twelve of cod liver oil,

Sold only to the medical profession; wholesale house, or on prescription at any pharmacy.

Prepared by THE RICHARDSON CO., 334 Franklin Street, Buffalo, N. Y.

Literature on application

PETER J. KREUZ

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HEINZE BROS., Props.

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237 Hampshire Street, BUFFALO, N. Y.

Prescription Specialists. Sick Room Supplies.

Prescriptions called for and delivered.

GIBBS' DRUG STORES

Cor. Delaware and Chippewa St.—Open to Midnight

Cor. Eagle and Washington Sts.—Open All Night

==NO SUBSTITUTION==

OUR CLAIM FOR YOUR BUSINESS

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YOURS TO COMMAND

WALTERS & SONS, DRUGGISTS

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Jefferson and Swan Sts.,

Genesee St. and Goodyear Ave., Buffalo, N. Y.

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Established 1820

Surgical Instruments, Physicians' and Hospital Supplies

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465 GLENWOOD AVENUE

BUFFALO

Physicians' Prescriptions Carefully Compounded

FRANK E. LOCK & CO., Pharmacists

1133 Seneca Street, Buffalo, N. Y.

(Continued from page 27.)

of such diseases as cholera, plague, typhoid fever, dysentery, streptococcic and pneumococcic infections, gonorrhea and even tuberculosis and rabies. Sensitized plague vaccine is now official in the French Pharmacopœia, sensitized tuberculin is coming into very general use in Germany and other European countries, and sensitized rabies vaccine, on account of the rapidity and greater certainty of its action, has been adopted as the official Pasteur treatment.

The underlying principle explaining the action of serobacterins, according to Besredka, is that the bacteria prepared by sensitization are rapidly devoured by the phagocytes, and this is the cause of the absence of unfavorable reactions following their use. The combining of antibodies and bacteria outside the body disposes of a long-drawn-out preliminary process which, with the bacterial vaccines, must be done by the patient's body cells. In serobacterins, this combination of antibodies with the bacteria being already performed, their action is immediate and free from local and general reactions.

The action of serobacterins may be characterized as follows:

1. *Certain*—because the bacteria are already prepared for phagocytosis and intra-cellular digestion.
2. *Rapid*—an effective immunifying response follows the first injection in from 24 to 48 hours.
3. *Harmless*—Being saturated with antibodies, the serobacterins do not absorb any of those present in the blood of the patient, and consequently cause no opsonic or clinical negative phase. They are free from toxic action.
4. *Permanent*—Animal experiments prove that the immunity secured from the use of serobacterins or sensitized bacterial vaccines is more permanent than that following the use of bacterial vaccines.

The rapid production of active immunity marking the action of serobacterins is invaluable in both the treatment of disease and preventive immunization. In treatment of a patient infected with rapidly multiplying pathogenic bacteria, the prompt immunizing response should overcome the infection before it causes serious damage. In preventive immunization, especially in epidemics, the advantage of securing immediate immunity should make the use of serobacterins almost obligatory.

Sensitization is a delicate and complicated procedure which can be successfully carried out only in especially equipped laboratories by experts of the highest type. The difficulties surrounding the preparation of sensitized vaccines have up to the present time prohibited their general use, and the production of this superior vaccine on a scale that will make its use possible in every-day practice marks an important step in bacterial therapy.

A very complete review of this most interesting subject appears in *The Mulford Digest* for December, and we suggest that any physician who has not received a copy of the December *Digest* containing this review should secure one.

SEDATION WITHOUT CARDIAC DEPRESSION

a main desideratum in acute infections, in fact at all times, is secured with

PASADYNE

(DANIEL'S CONCENTRATED TINCTURE
OF PASSIFLORA INCARNATA.)

MODERATE DOSAGE IS FOLLOWED BY SATISFACTORY THERAPEUTIC EFFECT.

~RELIABLE — WITHOUT HABIT — SAFE~

PASADYNE is the new name for Passiflora Incarnata
(Daniel's Concentrated Tincture), adopted for convenience and to prevent substitution.

SAMPLES AND LITERATURE SUPPLIED TO PHYSICIANS PAYING EXPRESS CHARGES.

Laboratory of JOHN B. DANIEL, Atlanta, Ga.

200,000 New Boosters for Buffalo

The 200,000 strangers who attended conventions in Buffalo during 1913 are engaged in some wonderful publicity for the beautiful city that entertained them.

Buffalo's fame is being spread broadcast, not alone in this country, but throughout the world at large. Buffalo has made friends of these thousands of visitors in the past year and they are telling of her pleasant situation, her hospitality, her wonderful advantages.

These visitors — these 200,000 new friends — were induced to come to Buffalo through the efforts of the Convention Bureau of the Buffalo Chamber of Commerce.

Now, this is but one part of the great work being carried on by the Buffalo Chamber of Commerce.

Each member may feel that he is helping.

Are YOU a Member?

We Are Splendidly Equipped

For making Fine Spectacles and Eyeglasses. The recommendation of the readers of this Magazine would be highly valued. It is our pleasure to have on record as prescription customers, the names of many physicians.

J. W. JARVIS, Maker of Fine Spectacles and Eyeglasses
214 FRANKLIN STREET (above Huron), BUFFALO

The Tuberculous Invalid

The pricking of the Friedmann bubble but served to still further confirm and accentuate the vital importance of the well defined methods of treatment for tuberculosis, that have given such encouraging results, i. e., fresh air, sunshine, rest, nutritive reinforcement and judicious medication. A proper combination of these four remedial factors is practically certain to place the incipient tuberculous invalid upon the road to recovery, if the patient is intelligently handled and the treatment persisted in. While it is, of course, acknowledged that the first three non-medicinal agents referred to constitute the vital elements of the upbuilding regime, considerable aid is afforded by judicious medication. Hematinic reinforcement should certainly not be neglected, in view of the secondary anemia which is almost always apparent. Among the agents which have produced the best results in the revitalization of the blood, Pepto-Mangan (Gude) is the most generally eligible and acceptable. As it is thoroughly palatable, neutral in reaction, free from irritant properties and devoid of constipating effect, the digestion of the patient is not disturbed, while the appetite and general vital tone improve more rapidly and satisfactorily than when hygienic and nutritive measures are depended upon exclusively.

Fellows_Syrupus Hypophosphitum

**Quadraginta per annos et a medicis et ab
aegris orbis terrarum totius probatus**

Compositio sui generis neque imitabilis

Reject < **Cheap and Inefficient Substitutes
Preparations "Just as Good"**

PUBLICITY DEPARTMENT

Buffalo Medical Journal

Editor: Dr. A. L. Benedict, 228 Summer St., Buffalo.

Monthly, established 1845, third in age of the medical journals of the western continent.

Special field, Western New York, Buffalo to Utica, and north-western Pennsylvania. See list of Associate Editors, front cover..

While the editor cannot personally guarantee statements of advertisers, and will not enforce a rule, however excellent as a general principle, which seems unjust in a particular case, the policy of the journal is to limit its advertising pages in accordance with accepted principles of fair play and honesty, and dignity—in other words, professional ethics.

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FOR SALE.—Polk's Directory of Physicians of North America, 1910. Letter scales. BUFFALO MEDICAL JOURNAL Office.

The *Journal of the A. M. A.*, page 312, January 24, 1914, contains a criticism of the Expurgo Mfg. Co. and of a large number of medical journals for carrying its advertisement. We beg leave to say that neither the letter-heads of the firm, which we have received in the course of business correspondence, the literature mailed to us, nor the advertisement makes any such claims of "positive cure," as is alleged in our esteemed contemporary. If the favorable reports by physicians, in personal and other cases, are based on percentage estimates of sugar, without regard to quantity passed, the blame should pass to the reporters on whom the firm necessarily relies for clinical checking of results. The firm claims that Expurgo-diabetes is of value both

(Continued on page 22.)

COLEMAN'S (HUDOR) Ginger Ale



A MILD STIMULANT you can recommend to your patients with confidence. It's made of Jamaica Ginger Root, pure granulated sugar, pure water, flavored with finest oils of Lemon and Limes, acidulated with citric acid and charged with pure carbonic Gas. No capsicum or other deceptive ingredient. No Preservative.

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WHEAT'S ICE CREAM

Properly made ice cream contains remarkable nutritive properties. It contains an admirable balance of heat, energy and muscle producing constituents along with more ash or bone building substance than whole milk contains. These statements are given credence by the fact that a chemical analysis showed 100 parts of Wheat's Ice Cream to contain the following:

Solid matter	34 parts
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Butter Fat	9 parts
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WHEAT'S ICE CREAM

"Where you see the name" or phone Seneca 1904,
Federal 4191.

(Continued from page 20.)

in diabetes mellitus and insipidus. We do not see how this claim can be harmonized with the claim of the *Jour. of the A. M. A.* that apparent improvement in the former is due merely to a lessening of percentage of sugar by dilution through diuretic action. Neither does the analysis of the compound by the Laboratory of the A. M. A. indicate that a marked increase in volume of urine would be expected. This analysis corroborates the statement made by the manufacturers as to the composition of their preparation.

Speaking as a physician, we agree with the *Jour. of the A. M. A.* in its implication that no drug is specific for diabetes—and the same might be said of most other diseases. But, both in diabetes and other conditions, a drug which is not in itself curative may be of great value and may even be the turning point in producing what, in the practical sense, may amount to a cure. Academically, there is probably no such thing as a cure and no therapeutic measure which is curative. We also agree with the general policy of one-drug prescribing, but we do not feel that the time-honored teaching of crossed action, modification of action, adjuvant effect, etc., can be set aside, much less that it can be denounced as unethical. The Expurgo Mfg. Co. advertises its product to physicians only, it supplies its formula, it is ready to submit the evidence of the profession itself as to efficacy. Each physician must be his own judge of the evidence. In the reading pages of the JOURNAL, we publish freely various articles irrespective of our personal opinions. We do not see that any editor has the right to exclude either an original article or an advertisement because of personal opinion. A magazine is a common carrier which must respect the rights of all. It would probably be legally responsible if it refused recognition of these rights, because of personal opinion. All that any advertiser asks is a fair opportunity to present his claims, and a fair judgment from those whom he reaches. Fair play is always good ethics.

Throat Affections

In all acute or chronic inflammations of the throat, pharyngitis, tonsilitis and laryngitis especially, Gray's Glycerine Tonic Comp. will be found of exceptional value. Used in appropriate dosage it allays congestion of the mucous membrane and underlying tissues, thus relieving pain and soreness, and by imparting tone to the local structures helps to restore normal conditions. "Gray's," moreover, is particularly useful as a prophylactic measure in those patients who are particularly subject to frequent colds. In such cases, its use from time to time tends to increase the resistance of the local mucous membrane and enable it to successfully combat germ attack. Public speakers and singers are also greatly benefited by "Gray's," and if administered for several days before putting the throat or voice to unusual strain, it can be relied upon to increase the strength and vitality of the local structures.



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Liquid and Tablets

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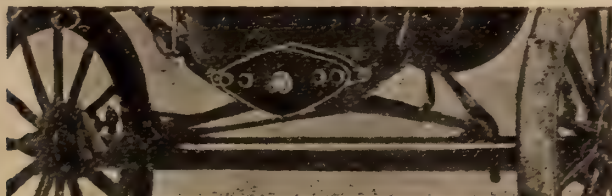
4-oz. 50c

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Tongaline Liquid—4=oz. bottle 50c—8=oz. bottle \$1.00—5-pt. bottle \$5.50
Tongaline Tablets—Tongaline & Lithia Tablets
Tongaline & Quinine Tablets—Ponca Compound Tablets
Box—50 Tablets 50c Box—100 Tablets \$1.00

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THE ALVORD PRIMER primes, cleans, saves gas, more power, air brake. Year round proposition for all motors. **\$5.00.**

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It frequently happens that one of the most annoying symptoms of an acute infection is a state of marked restlessness. An agent of particular utility in this condition is Bromidia (Battle), which, although administered in small dosage, may be relied upon to quiet the wrought up nervous centers and secure for the harassed patient the rest he so obviously needs.

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One of the reasons that make Pasadyne (Daniel) particularly suitable for use in headaches and neuralgias is its freedom from danger. Not only this, but, furthermore, its employment does not subject the patient to the jeopardy of drug addiction. Pasadyne (Daniel) is merely a distinctive name for the most potent concentrated tincture of passiflora incarnata at the profession's command. Use it in headache and neuralgia and note its effect. A sample bottle may be had by addressing the laboratory of John B. Daniel, Atlanta, Georgia.

Improved Bacterial Therapy

SEROBACTERINS

(Sensitized Bacterial Vaccines)

"Action **sure, rapid, harmless and durable.**"—A. Besredka.

Serobacterins are suspensions of bacteria "sensitized" by treatment with specific immune serum.

The advantages of **Serobacterins** may be briefly summarized as follows :

1. SEROBACTERINS do not cause opsonic nor clinical negative phase. In the process of sensitization the bacteria are saturated with the specific antibodies, consequently they do not absorb antibodies from the patient, preventing unfavorable reactions or the so-called negative phase.

2. SEROBACTERINS produce immediate active immunity.

(24 hours after the first injection an effective immunity is present and marked improvement is usually noted in the condition of the patient.)

This rapid action makes them invaluable in treatment and in preventive immunization. This is of great importance in controlling or preventing epidemics.

3. SEROBACTERINS cause no local or general reactions.

(These reactions constituted the principal undesirable feature of the Bacterial Vaccines.)

4. SEROBACTERINS produce a highly efficient and durable immunity.

The following **SEROBACTERINS** are supplied in the popular Mulford Aseptic Glass Bacterin Syringe, ready for instant use.

Staphylo-Serobacterin. (Sensitized Staphylococcic Vaccine.)

Strepto-Serobacterin Polyvalent. (Sensitized Streptococcic Vaccine.)

Scarlatina Strepto-Serobacterin. (Sensitized Streptococcic Vaccine
Scarlatinal.)

Typho-Serobacterin. (Sensitized Typhoid Vaccine.)

Packages of 4 syringes . . . \$4.00

Single syringes . . . 1.50

Each syringe one dose.

For a complete review of the literature on Serobacterins, see Mulford Digest
for December.

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ERGOAPIOL (Smith)

For
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DYSMENORRHEA
MENORRHAGIA
METRORRHAGIA
ETC.**

ERGOAPIOL (Smith) is supplied only in packages containing twenty capsules.

DOSE: One to two capsules three or four times a day. < < <

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MARTIN H. SMITH COMPANY, New York, N.Y., U.S.A.

The Pneumonia Convalescent

While the course and progress of acute lobar pneumonia is short, sharp and decisive, the impression made upon the general vitality is often profound, and apparently out of proportion to the duration of the disease. Even the robust, sthenic patient is likely to emerge from the defervescent period with an embarrassed heart and general prostration. In such cases the convalescent should be closely watched and the heart and general vitality should be strengthened and supported, and this is especially true as applied to the patient who was more or less devitalized before the invasion of the disease. For the purpose indicated, strychnia is a veritable prop upon which the embarrassed heart and circulation can lean for strength and support. As a general revitalizing agent is also needed at this time, it is an excellent plan to order Pepto-Mangan (Gude), to which should be added the appropriate dose of strychnia, according to age, condition and indications. As a general tonic and bracer to the circulation, nervous system and the organism generally, this combination cannot be surpassed.

McCaffrey's Pharmacy

Corner Tonawanda St.,
and Riverside Ave.

BUFFALO, N. Y.

J. B. SUMNER

Druggist

1872 Niagara St. Buffalo, N. Y.

H. M. ANTHONY

DRUGGIST

1657 Main St, Buffalo, N. Y.

Bigham-Dambach Co.

Prescription Pharmacists

720 Elmwood Avenue, cor. Breckenridge

BUFFALO

CHESCARA COMPOUND

A palatable, non-toxic preparation for the treatment of Whooping Cough, Asthmas, Bronchitis, Croup and other diseases of the respiratory tract.

Alcohol 8%

Each drachm contains 10 minims of fluid extract of castanea and three of cascara, with thyme and aromatics.

HENRY D. DEUCHLER

7 Walden Ave. Pharmacist Buffalo, N. Y.

KELLER'S PHARMACY

739 Seneca St. Buffalo, N. Y.

PRESCRIPTIONS A SPECIALTY

Both Phones

DOWD'S PHOSPHORUS TONIC

A POWERFUL NERVE AND SYSTEMIC TONIC CONTAINING PHOSPHORUS IN ITS FREE STATE

Used and recommended by some of the most EMINENT MEN IN THE PROFESSION, also many of the LEADING HOSPITALS AND SANITARIUMS in Buffalo and elsewhere.

It is specially recommended in ALL NEUROTIC CONDITIONS in which reported results have been marvelous. Dose—20 to 30 drops three times daily in milk.

As a general tonic or reconstructive agent one ounce equals twelve of cod liver oil,

Sold only to the medical profession; wholesale house, or on prescription at any pharmacy.

Prepared by THE RICHARDSON CO., 334 Franklin Street, Buffalo, N. Y.

Literature on application

PETER J. KREUZ

PHARMACIST

584 Clinton Street, cor. Madison

BUFFALO, N. Y.

PARK PHARMACY

HEINZE BROS., Props.

Frontier Phone 37591. Bell Phone, Tupper 5346

237 Hampshire Street, BUFFALO, N. Y.

Prescription Specialists. Sick Room Supplies.

Prescriptions called for and delivered.

GIBBS' DRUG STORES

Cor. Delaware and Chippewa St.—Open to Midnight

Cor. Eagle and Washington Sts.—Open All Night

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OUR CLAIM OFR YOUR BUSINESS

THIS SPACE FOR SALE.

The Paine Drug Company

Established 1820

Surgical Instruments, Physicians' and Hospital Supplies

24-26 Main Street East Rochester, N. Y.

Dittly's Drug Store

465 GLENWOOD AVENUE

BUFFALO

Physicians' Prescriptions Carefully Compounded

FRANK E. LOCK & CO., Pharmacists

1133 Seneca Street, Buffalo, N. Y.

The Great Practical Advance in Serotherapy and Immunization by Means of Serobacterins

Serobacterins are sensitized bacterial vaccines or suspensions of killed sensitized bacteria. In the language of the laboratory, they are produced by saturating bacteria with the specific antibodies found in the serum by centrifuging and suspending the bacteria in a saline solution. According to the trustworthy reports of bacteriologists and clinicians, they are destined in great measure to supplant other means of immunizing against and treatment of many infectious diseases.

The method of sensitizing is, in brief, the treatment of killed bacteria with specific immune serum whereby the bacteria unite with the immune bodies present in the serum, so that upon injection the combination is ready for immediate attack by the "complement" in the patient's blood.

There is thus secured a great gain of time over the older methods of bacterial therapy, and whether in prevention or treatment this immediacy is of the utmost value. In a few days, for instance, by typho-serobacterin, the practitioner may now secure for his patient immunity against typhoid as formerly in nearly a month with the old typhoid vaccine.

Other advantages are that there is no local irritation at site of injection and little or no lassitude or sickness. More important, still, is the fact that there is no negative phase. The size of the doses may also be greatly increased, even quadrupled, thus assuring rapidity of production and strength of immunity.

Of interest in this connection are the laboratory results of Theobald Smith and the work of Von Behring in combining diphtheria toxin and antitoxin for immunization against diphtheria. By making mixtures containing varying amounts of toxin and antitoxin they were able to secure any degree of immunity—from a short passive immunity due to the serum, to an active immunity of long duration, resulting from the action of the toxin.

To the foregoing advantages of the uses of serobacterins it may be added that in very late stages of the disease, when the bacterial vaccines and even serum treatment is ineffective, successful results are sometimes obtained and life is saved.

Besredka, of the Pasteur Institute, authoritatively summarizes the matter by saying:

"Whatever the nature of the virus, whether the microbe of plague, dysentery, cholera or typhoid fever, or whether the virus of rabies or the toxin of diphtheria, whether the microbes are killed or living, sensitization confers upon them properties which convert them into vaccines of the first order, possessing an action which is sure, rapid, inoffensive and durable."

The results of the clinical use of serobacterins in actual practice give, of course, the final and convincing test. Of such reports one notices that of Gordon, on the successful use of strepto-serobacterin (sensitized streptococcus vaccine) in erysipelas, emphasizing the fact that when the treatment did no good it did not do the slightest harm; that prophylactically in the face of epidemics it should have a great future; that in hospitals the resistance of the patients may be raised to bacillus coli, streptococcus pyogenes, or the pneumococcus before operations on the alimentary tract or other infected area; for preventing secondary infections and possibly in cases of difficult labor. He says that in cases already infected, the evidence shows that in a proportion of instances it is possible by this method to promote materially the patient's recovery. "By administering a sensitized vaccine to these patients, we appear to bring into action available reserves in that complex and still incompletely defined entity, the patient's specific resistance."

As to the dosage, Gordon, in erysipelas, gave as the first dose 500 million; 24 hours later the second dose was 1,000 million; the third, in 24 hours, was 2,000 million.

(Continued on page 37)

THE URGENT NEED OF THE NERVOUS SYSTEM
 following acute or chronic alcoholism is
 for the sedative influence of

PASADYNE

(DANIEL'S CONCENTRATED TINCTURE
 OF PASSIFLORA INCARNATA.)

The positiveness of PASADYNE in overcoming nervous manifestations due to alcoholic poisoning is one of the substantial facts of therapeutics.

PASADYNE is the new name for Passiflora Incarnata (Daniel's Concentrated Tincture) adopted for convenience and to prevent substitution.

SAMPLES AND LITERATURE SUPPLIED TO PHYSICIANS PAYING EXPRESS CHARGES.
 Laboratory of JOHN B. DANIEL, Atlanta, Ga.

200,000 New Boosters for Buffalo

The 200,000 strangers who attended conventions in Buffalo during 1913 are engaged in some wonderful publicity for the beautiful city that entertained them.

Buffalo's fame is being spread broadcast, not alone in this country, but throughout the world at large. Buffalo has made friends of these thousands of visitors in the past year and they are telling of her pleasant situation, her hospitality, her wonderful advantages.

These visitors — these 200,000 new friends — were induced to come to Buffalo through the efforts of the Convention Bureau of the Buffalo Chamber of Commerce.

Now, this is but one part of the great work being carried on by the Buffalo Chamber of Commerce.

Each member may feel that he is helping.

Are YOU a Member?

DUFFY'S PURE MALT WHISKEY



A medical whiskey made especially to comply with the test requirements of the United States Pharmacopoeia, the fusel oil being largely removed in the process of refining. It acquires smoothness and body without absorbing tannic and acetic acids and tar products by being aged in specially prepared barrels.

We request the careful attention of physicians to the medicinal properties of Duffy's Pure Malt Whiskey. Used as directed it will be found invaluable when a tonic stimulant is required.

A post-card addressed to the

**DUFFY MALT WHISKEY COMPANY,
DEPT. G. ROCHESTER, N. Y.**

Will bring a special container with samples for office use.

(Continued from page 35)

Broughton-Alcock found that in acute and chronic gonorrheal urethritis the injections were of little value, but that good results were almost invariable in gonorrheal orchitis, epididymitis, arthritis and peri-arthritis, tenosynovitis, acne, furunculosis, impetigo, seborrheic eczema.

Boinet found that the good results in typhoid fever were in accordance with its use nearer the beginning of the infection, diminishing the gravity and shortening the duration of the disease.

In gonorrheal Cruveilhier found that in all cases the duration of the disease was sensibly modified; in acute gonorrheal rheumatism he reports a number of cures. In chronic gonorrheal rheumatism and metritis favorable results are reported.

Speaking generally, serobacterins give active immunity within 24 hours after the first injection, with marked improvement in the patient's condition. They produce no opsonic or clinical negative phase—and, therefore, will do away with this cause of solicitude on the part of physicians using the ordinary bacterial vaccines in the past.

To insure that the serobacterin is properly sensitized careful complement fixation tests are carried out to ascertain the extent of antibody absorption by the bacteria. As a further safeguard guinea-pigs are injected and the action of the serobacterin is followed by means of a series of tests made with the blood serum of the treated animal.

Great care is advisable in the selection of a sensitized vaccine, or serobacterin—the product only of that manufacturer should be chosen of the highest professional character.

A complete review of the Literature on Serobacterins appears in the *Mulford Digest* for December, and we suggest that those who have not received a copy of this issue request one, to be read and kept on file for future reference.



Spencer Abdominal, Spinal, Maternity.

AND

Surgical Supporting Corsets.

MADE TO MEASURE.

Physicians' Instructions Carefully Followed.

Spencer Corset Shop.

70 W. Chippewa St., Room 3 BUFFALO, N. Y.

Mrs. Kimball Clark, Manager.



Auto Owners---Boil Your Gasoline Get a "Sure Start"

The "SURE-START" Electric Vaporizer boils gasoline in ten seconds.

The hot vapor gives you a sure start instantly.

Effective on all cars, whether self-starting or hand-cranked.

Overcomes cold weather and poor gasoline troubles.

One switch—one turn—does it.

No trouble, danger or uncertainty.

Runs engine as long as desired.

Fine for any gasoline engine — auto, stationary or motor boat.

Easily installed. Weighs only 10 oz.

Cost complete only \$8.00.

Write for interesting story.

Reference to Editor.

W. E. & J. H. DODSON

Sales Agents for United Motor Equipment Co.
19 S La Salle St., Chicago, Ill.

Due and Further Knowledge of Its
Quality Can Only Increase
Professional Approval
of

HYDROLEINE

In practice Hydroleine has been found to reliably meet requirements for a nourishing food-fat of marked dependability. It is pure, fresh Norwegian cod-liver oil without any medicinal admixture. Thoroughly emulsified, it is easily digestible in itself and has been known to aid in the assimilation of other foods and to promote the habit of digestion.

Hydroleine does not defeat its purpose nor the intention of the prescription. Children take it without objection,—even with liking.

Hydroleine does not offend the most delicate palate

Sold by druggists

THE CHARLES N. CRITTENTON CO., 115 FULTON ST., NEW YORK

Sample with literature will be sent to physicians on request.

DUFFY'S PURE MALT WHISKEY



A medical whiskey made especially to comply with the test requirements of the United States Pharmacopoeia, the fusel oil being largely removed in the process of refining. It acquires smoothness and body without absorbing tannic and acetic acids and tar products by being aged in specially prepared barrels.

We request the careful attention of physicians to the medicinal properties of Duffy's Pure Malt Whiskey. Used as directed it will be found invaluable when a tonic stimulant is required.

A post-card addressed to the

**DUFFY MALT WHISKEY COMPANY,
DEPT. G. ROCHESTER, N. Y.**

Will bring a special container with samples for office use.

Bronchial Catarrh

"The douche you kindly sent me with your compliments was duly received. I have been using Glyco-Thymoline on myself for the past month or more in a case of Bronchial Catarrh of over thirty years' standing, and am happy to state that the result has been gratifying and an agreeable surprise to me. I don't exaggerate when I say it has done me far more good in this short time than all the remedies put together that I have used in the past. If it did not cure, the relief and comfort it secures would justify its use, but I think a persistent use for a reasonable time will result in a cure of any case."

DR. J. T. DOLLAHAN, Sumner, Ill.

"Whatever be the nature of rheumatism and gout, every practical physician realizes that they are amenable to treatment and that it is a matter of as much importance to open the doors by which the poison goes out as to close those doors by which it comes in. Hence prompt and thorough elimination must be obtained through the liver, the kidneys, the bowels and the skin."

For accomplishing this purpose there is no remedy equal to Tongaline, which has been so successfully used for 30 years in the treatment of rheumatism, neuralgia, grippe, gout, nervous headache, malaria, sciatica, lumbago, tonsilitis, heavy colds and excess of uric acid.



Spencer Abdominal, Spinal, Maternity.

AND

Surgical Supporting Corsets.

MADE TO MEASURE.

Physicians' Instructions Carefully Followed.

Spencer Corset Shop.

70 W. Chippewa St., Room 3 BUFFALO, N. Y.

Mrs. Kimball Clark, Manager.

Auto Owners---BOIL YOUR GASOLINE Get a "Sure Start"

The SURE-START" Electric Vaporizer
boils gasoline in ten seconds.

The hot vapor gives you a *sure start instantly.*

Effective on all cars, whether self-starting or hand-cranked.

Overcomes cold weather and poor gasoline troubles.

One switch—one turn—does it.

No trouble, danger or uncertainty.

Runs engine as long as desired.

Fine for any gasoline engine — auto, stationary or motor boat.

Easily installed. Weighs only 10 ounces.

Cost complete only \$8.00

Write for interesting story.

Reference to Editor.

W. E. & J. H. DODSON

Sales Agents for United Motor Equipment Co.
19 S. La Salle St., Chicago, Ill.

HYDROLEINE

An ethical emulsion of cod-liver oil

**Professionally
Reported
Results and
Its Stability
Commend
Hydroleine
to Physicians
Seeking
Dependability**



Hydroleine is pure, fresh Norwegian cod-liver oil emulsified after a scientific formula and by approved processes. Without medicinal admixture, it can interfere with no other indicated treatment.

In practice and continued use it has been found that its superior digestibility promotes its usefulness, while its nutty and distinctive flavor widens the range of cases in which it can be prescribed to advantage.

**Hydroleine does not offend the most delicate palate
and children take it willingly.**

Sold by druggists

THE CHARLES N. CRITTENTON CO., 115 Fulton Street, New York

Sample with literature sent to physicians on request.

Bacterial Vaccine Therapy

Treatment of infectious diseases with preparations derived from corresponding micro-organisms is unquestionably growing in favor. Not only do the bacterial vaccines (or bacterins) seem destined to a permanent place in therapeutics, but their field of applicability is constantly broadening. Proof of this is seen in the growing list of these products announced by Parke, Davis & Co., no less than nineteen of the vaccines now being offered to the profession.

There are a number of reasons for the favor which is being accorded to the bacterial vaccines. In the first place these products are in consonance with the scientific trend of present-day medication. They are being used with a gratifying measure of success. The way in which they are marketed (sterile solutions in hermetically sealed bulbs and in graduated syringes, ready for injection) appeals to the modern medical man, since it assures both safety and convenience. The moderate prices at which they may be purchased also tend to give them vogue.

Fellows_Syrupus Hypophosphitum

**Quadraginta per annos et a medicis et ab
aegris orbis terrarum totius probatus**

Compositio sui generis neque imitabilis

**Reject < Cheap and Inefficient Substitutes
Preparations "Just as Good"**

PUBLICITY DEPARTMENT

Buffalo Medical Journal

Editor: Dr. A. L. Benedict, 228 Summer St., Buffalo.

Monthly, established 1845, third in age of the medical journals of the western continent.

Special field, Western New York, Buffalo to Utica, and north-western Pennsylvania. See list of Associate Editors, front cover..

This field will be enlarged as occasion arises, and advertisers are requested to suggest such opportunities.

Advertising is limited in accordance with general principles of fair play, honesty and dignity, but we do not feel warranted in enforcing arbitrary discriminations, post facto rules or personal opinions as to merit.

New copy and plates must be delivered by the 20th of the month preceding date of issue. Otherwise standing copy will be repeated. No responsibility is assumed for minor errors in proof when time is not allowed for revision by advertiser. Old plates will be held three months subject to order, when they will be destroyed to prevent confusion.

PREFERRED SPACE FOR SALE.—Half inside back cover; half page facing advertising index; half page opposite last cover; half page above Table of Contents; half page opposite last reading page.

FOR SALE.—Polk's Directory of Physicians of North America, 1910. Letter scales. BUFFALO MEDICAL JOURNAL Office.

Can the Physician Control the Entire Consumption of Drugs?

A few weeks ago an enterprising druggist had a bargain sale, for which he advertised special cut rates on various patent medicines and what are usually classed as ethical proprietaries. For this reason, the *Journal of the A. M. A.* thinks that the latter should be permanently classed with the former. Having seen practically identical advertisements of sales of epsom salts, Seidlitz powders, soap liniment, paregoric, ammonia water and aromatic spirits of ammonia, compound cathartic pills, collodion, plasters, salves, etc., not to mention malt, whisky, brandy, sherry, etc., all of which are officinal, we venture the opinion that if domestic or other use, not on physicians' prescriptions—this of course being behind any advertisement of the kind criticised—warrants the exclusion of a proprietary preparation from the fold of ethical medicine, an officinal drug advertised in the same way ought to exclude it from the pharmacopœia and from the use of the medical profession.

This is, of course, a *reductio ad absurdum*. The real issue is the stand to be taken as to the use of drugs not directly applied,

(Continued on page 22.)

COLEMAN'S

(HUDOR)

Ginger Ale



A MILD STIMULANT you can recommend to your patients with confidence. It's made of Jamaica Ginger Root, pure granulated sugar, pure water, flavored with finest oils of Lemon and Limes, acidulated with citric acid and charged with pure carbonic Gas. No capsicum or other deceptive ingredient. No Preservative.

HUDOR WATER COMPANY
BUFFALO, N. Y.

Wheat's Ice Cream

You've read that **WHEAT'S** is delicious ice cream—that **WHEAT'S** is pure—that **WHEAT'S** is nutritious—that **WHEAT'S** is clean because it is made in the world's most sanitary ice cream plant.

Now Try Wheat's "Sunday Specials"

Prove that you are genuinely in favor of **Absolute Purity** and **100% Cleanliness** in the making of frozen desserts by ordering and serving on your own table these exquisite dainties **Every Sunday**.

Send in your order through your own Wheat's dealer if you like, or to us direct.

Phone Seneca 1904—Frontier 4191

WHEAT'S ICE CREAM COMPANY

(Continued from page 20.)

supplied or prescribed by a physician. In this regard, we think that no distinction can be made between officinal and non-officinal remedies, between simples and compounds, between those of which a hundred are carried by a dozen firms and those which are each the sole product of a single firm. It may be ideal that no drug should be used except on a physician's prescription, but the fact remains that most families carry a stock of domestic remedies, that the average layman buys his occasional cathartic directly, cleanses and binds up his minor cuts, treats various other minor injuries, uses catnip and peppermint without considering a visit from the family doctor, and uses a variety of alcoholic Galenicals in most diverse ways. This is a condition that cannot be avoided. If it is not carried to an extreme, we doubt whether it ought to be avoided, or whether the average physician wants to be summoned for every trivial ailment. We confess that every one of the proprietary preparations criticized by our contemporary, we have prescribed informally and verbally, to patients, even to those who could not be considered patients in the formal sense. We have done the same with regard to a considerable number of other drugs of the same class, as well as of officinal drugs and preparations neither officinal nor, in the ordinary sense, proprietary. We confess that it is a convenience to find persons who know such remedies and have them in the house. Others, we believe, share this turpitude with us. It is inevitable that a great many different remedies, of many different kinds and modes of use, are indicated in very simple conditions, not usually considered to require a physician's services. This does not prevent the same remedies having a value in serious illness, along with more potent and less generally available drugs.

To this we wish to add a very important qualification: While we would not condemn a drug, either from the therapeutic or the ethical standpoint, because of its reasonable use by the laity, the attempt to supplant professional services in serious conditions, by advertising to the laity by those responsible for a drug, is a very different matter.

A little while ago one of our contemporaries denounced a diagnostic chart presented to the profession by a manufacturing firm, on the assumption that it would be used by incompetent physicians who would imagine that it would take the place of the year or so hard study necessary for even moderate proficiency in the particular branch of medicine. The same journal publishes the following as an advertisement. Is it any wonder that the average editor finds it difficult to comprehend ethical rules and has to resort to ordinary principles of decency and fairness?

"By means of a new optical instrument, any physician is able, in the briefest time and without handling lenses, to fit the eyes with glasses, using standard test type and distances. Exclusive fields assigned to qualified demonstrators and sales agents who can invest \$100 or more."

Make Your Old Car LOOK NEW FOR \$6.50



A COMPLETE REPAINTING OUTFIT

Paint your car today and use it tomorrow.
15 ITEMS—EVERYTHING NECESSARY

Motor Car Equipment Co.

55 WARREN ST.

NEW YORK

"Just Plain Nervousness"

Toward the relief of that condition which may be aptly characterized as "just plain nervousness," PASADYNE (Daniel) will be found of distinct value. PASADYNE, of course, is merely a high-grade Concentrated Tincture of Passiflora Incarnata, and possesses a definite calming influence. It is in nervous states marked by sleeplessness that PASADYNE (Daniel) in moderate dosage, shows its marked usefulness. A sample bottle (without cost) may be had by addressing the laboratory of John B. Daniel, Atlanta, Georgia.

Chronic Glandular Enlargement

For many years Iodia (Battle) has been a favorite agent in chronic glandular enlargement, owing to the distinct alterative influence it is capable of exerting. In such conditions there is a clear indication for iodine, and this is furnished the tissues through the administration of Iodia (Battle). The therapeutic value of this drug is augmented by the active principles of such well known vegetable alteratives as stillingia, helonias, saxifraga, menispermum.

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Established 1820

Surgical Instruments, Physicians' and Hospital Supplies

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Rochester, N. Y.

Dittly's Drug Store

465 GLENWOOD AVENUE

BUFFALO

Physicians' Prescriptions Carefully Compounded

FRANK E. LOCK & CO., Pharmacists

1133 Seneca Street, Buffalo, N. Y.

The Recovery From Typhoid

In spite of the improvements in general sanitation, typhoid fever still continues to exist, and is especially prevalent during the fall and early winter months. It is more than probable that most cases occurring in the larger cities are the results of infections contracted at the summer vacation resorts, where the water and food supplies are not as carefully safeguarded as in urban communities. Although many forms of treatment, designed to abort or cut short the disease, have been advocated from time to time, it is indeed doubtful whether such regulation of the infection has ever been accomplished. As the average course of Typhoid is from four to six weeks, it is scarcely to be wondered at that the patient usually emerges from the attack in a generally devitalized condition. This is accounted for not only by the general toxemia incident to the bacillary infection, but also because the practically exclusive milk diet generally adopted deprives the patient of the natural food iron which ordinarily maintains the ferric sufficiency of the blood. Some degree of anemia is therefore almost always in evidence when convalescence is first established. The quickest and safest way to overcome this blood deficiency and to hasten revitalization and a return to the normal, is to give Pepto-Mangan (Gude) regularly and in full dosage. This thoroughly agreeable and acceptable hematic tonic is particularly serviceable in typhoid convalescence, because it does not irritate or disturb the digestion, nor induce constipation.

W. B. Saunders Company, Publishers of Philadelphia and London, have just issued an entirely new eighty-eight page Illustrated Catalogue of their publications. As great care has evidently been taken in its production as in the manufacture of their books. It is an extremely handsome catalogue. It is a descriptive catalogue in the truest sense, telling you just what you will find in their books and showing you by specimen cuts the type of illustrations used. It is really an index to modern medical literature, describing some 250 books, including thirty new books and new editions.

A postal sent to W. B. Saunders Company, Philadelphia, will bring you a copy—and you should have one.

IN THE ACHES OF WOMEN

in whom the most discriminating care in the choice of analgesic and sedative agents is so essential,

PASADYNE

(DANIEL'S CONCENTRATED TINCTURE OF PASSIFLORA INCARNATA.)

produces results of a most positive character.

USE IT WITH CONFIDENCE IN
HEADACHE, OVARIAN PAIN, ETC.

PASADYNE is the new name for *Passiflora Incarnata* (Daniel's Concentrated Tincture) adopted for convenience and to prevent substitution.

SAMPLES AND LITERATURE SUPPLIED TO PHYSICIANS PAYING EXPRESS CHARGES.

Laboratory of JOHN B. DANIEL, Atlanta, Ga.

200,000 New Boosters for Buffalo

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Buffalo's fame is being spread broadcast, not alone in this country, but throughout the world at large. Buffalo has made friends of these thousands of visitors in the past year and they are telling of her pleasant situation, her hospitality, her wonderful advantages.

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Now, this is but one part of the great work being carried on by the Buffalo Chamber of Commerce.

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A post-card addressed to the

DUFFY MALT WHISKEY COMPANY,

DEPT. G. ROCHESTER, N. Y.

Will bring a special container with samples for office use.

Common Sense in Managing Digestive Disorders

The artificial digestives have their place in modern therapy, but their use should always be tempered with sound judgment. Otherwise conditions we seek to correct are very apt to be aggravated. Undoubtedly we have placed too much reliance upon the digestants and as a consequence have often done more harm than good. As one physician states in referring to the digestive function: "Nature should be gently assisted in the human economy. If we persist in doing its work, like the lazy man, it soon depends on that assistance. This is true to the action of the liver, stomach, intestines, as well as all functions of the human anatomy. How often do we meet with individuals who are habitually dosing themselves whenever an action of the liver or bowels is required, and others who require a dose of pepsin or one of the many artificial digestives after each meal. This is all wrong. The functional activity of the entire process of digestion should be encouraged and any remedy that will specifically stimulate these functions to their healthy action is of greater service in digestion than pepsin. Seng, a remedy that has a well defined secernent action on the glands and mucous membranes of the stomach and intestines, thus compelling the secretions of Nature's own digestive fluids, is the modern treatment for dyspepsia."

THIS SPACE FOR SALE.



Auto Owners---Boil Your Gasoline Get a "Sure Start"

The "SURE-START" Electric Vaporizer boils gasoline in ten seconds.

The hot vapor gives you a sure start instantly.

Effective on all cars, whether self-starting or hand-cranked.

Overcomes cold weather and poor gasoline troubles.

One switch—one turn—does it.

No trouble, danger or uncertainty.

Runs engine as long as desired.

Fine for any gasoline engine — auto, stationary or motor boat.

Easily installed. Weighs only 10 oz.

Cost complete only \$8.00.

Write for interesting story.

Reference to Editor.

W. E. & J. H. DODSON ❖

Sales Agents for United Motor Equipment Co.
19 S. La Salle St., Chicago, Ill.

HYDROLEINE

Hydroleine is made from pure Norwegian cod-liver oil so scientifically emulsified that it is pleasant to take—children like it and it

Is Exceptionally Digestible

Thus Hydroleine is utilizable to an unusual extent in cases in which cod-liver oil is indicated. It has no medicinal admixture. It is stable and in practice has been found dependable to a marked degree. Hydroleine

Justifies Professional Confidence

Sold by druggists

THE CHARLES N. CRITTENTON CO., 115 Fulton Street, New York

Sample with literature sent to physicians on request

COLEMAN'S

(HUDOR)

Ginger Ale



A MILD STIMULANT you can recommend to your patients with confidence. It's made of Jamaica Ginger Root, pure granulated sugar, pure water, flavored with finest oils of Lemon and Limes, acidulated with citric acid and charged with pure carbonic Gas. No capsicum or other deceptive ingredients. No preservative.

HUDOR WATER COMPANY
BUFFALO, N. Y.

Wheat's Ice Cream Co.

Interesting Facts Concerning the Ice Cream Industry.

One hundred and fifty million gallons of ice cream were produced in the United States in the year 1913.

Two hundred and twenty-five million gallons of whole milk was required to make this quantity of ice cream.

Buffalo consumes about one and one-half million gallons of ice cream yearly.

The largest ice cream plant in the world in point of capacity is operated in Buffalo by the Wheat's Ice Cream Co.

Manufacturers of foods freely concede that the plant of the Wheat's Ice Cream Co. is one of the most sanitary food manufactories in the United States.

WHEAT'S ICE CREAM

"Where you see the name" or phone Seneca 1904. Frontier 4191.

Ethical Requirements of Advertisers.

At first thought, it might seem a simple rule that firms advertising in medical journals should not advertise to the laity. So far as drugs, strictly surgical instruments and books are concerned, this rule does hold. But it will be noted that there are a great many articles of general use, appropriately advertised to physicians which have no very direct bearing upon medical practice and which may, with propriety, be advertised to the laity also—for example, automobile supplies, insurance and investments, plumbing appliances, etc.

There are also a good many things which are really therapeutic substances, such as soap and beverages, to which the hard and fast rules against lay advertising can scarcely hold good. Unfortunately, too, there are intermediate problems, each of which must be settled on its own merits. So far as we know, no one has objected to advertisements of tea and coffee in medical journal. Yet any medical journal which advertises beverages containing alkaloids of very similar composition and physiologic action, is denounced as favoring the use of harmful drugs liable to produce a habit. This stricture is undoubtedly true, but, so far as we can judge, no more true than for tea or coffee. The best interests of temperance would be served if all alcoholic beverages were used solely as drugs and advertised solely as therapeutic remedies, to be prescribed by physicians. This ideal state of affairs is far from realization. In fact, few liquor dealers realize that their wares are, for the most part, officinal drugs, with technical Latin names. Most medical journals carry such advertising without criticism on ethical grounds, yet in certain circumstances, special preparations are singled out for denunciation on ethical grounds.

Some time ago, we had to dodge a contract for advertising offered by a corn doctor. Yet, one of our patients, referred to a regular medical specialist on the feet, was referred to this same man by him and other corn doctors are actually employed by members of the medical profession. If we inserted the advertisement of an osteopath who had the sense to believe that this work was purely mechanic and that it should not be undertaken for the relief of serious medical conditions independently of the advice of a regular physician, we should be severely criticised. Yet, we may insert the advertisement of masseurs, etc., who do not hold osteopathic diplomas and who take the same view of their art that every osteopath ought to take. We are inclined to believe that if honest osteopaths could advertise themselves as assistants to regular physicians, much of the evil of this semi-professional class could be done away with.

A great deal of trouble about ethics is due to the habit of carrying commercial methods of expression into the medical field. Superlatives and absolute statements, often place a

(Continued on page 25)

Tongaline

**Does not cause
the injurious effects on the stomach,
or the other disturbances of
salicylism produced by the
sodium salicylate made from coal-tar.**

Furthermore the uniformly good results from Tongaline are secured largely by the thorough and constant absorption of the salicylic acid it contains because this is made from the natural oil of wintergreen.

Samples by Express prepaid - Mellier Drug Company. St. Louis.

FORD OWNERS START FROM
SEAT WITH



Phones, Federal 2100; Bell, Seneca 3571-W

HANDY STARTER IMPROVED

Comfort, Safety and Ease: Any woman can start the motor, \$16.00.

THE ALVORD PRIMER primes, cleans, saves gas, more power, air brake. Year round proposition for all motors. \$5.00.

PRICE FOR BOTH \$20.00

Send for circulars.

**C. E. ALVORD, Mfr., 80 Terrace,
BUFFALO, N. Y.**

(Continued from page 22)

preparation under the ban when it is not only excellent in itself but marketed to the medical profession alone. The man who writes the copy just can't get away from the idea that he is running a sideshow, and that the gaudiest colors and biggest noise are necessary to attract the crowd. The word **cure** is like a red rag flaunted in the face of a bull. We well recollect a discussion about the unethical status of a certain drug. Several physicians agreed that it was unethical. One ventured to say that he was certain that it was not advertised to the laity. Another pointed out that, from the nature of the preparation, there was no reason either to doubt its (moderate) efficacy or its purity. Another suggested a post mortem on the advertising to analyse the ethical fault. No one present could put his finger on anything that warranted the charge of

(Continued on page 26)

(Continued from page 25)

unethical and yet, something about the line of advertisements carried suggested a low grade, unethical product.

A little while ago, a firm was attacked for misleading statements to the laity. Except that the preparation was in a class to which it is not usually considered practicable to apply the ethical rule in regard to lay advertising, the offense was sufficient to exclude it from medical magazines—except further that the offense was in the past, not in the present. Aside from the ethics of the matter, the lay advertising tended to arouse false hopes as to cure and thus to prevent the application of rational therapeutic measures but the claims made were in accordance with professional notions formerly prevalent. The gist of the ethical—and business—problem presented is: Shall a firm be rated according to its past sins against ethics? We believe not. The commercial methods of the present are on a far higher ethical plane than of even a few years ago, especially regarding those firms which appeal for medical support. Not only is it sensible and charitable to judge an act according to contemporaneous standards but this is a firmly established precedent of the medical profession with regard to its own members. Indeed, this principle of overlooking ethical offenses in the past, had been applied to the very man who raised the ethical question to which we allude.

Nasal and Aural Infections.

There is a growing impression among specialists in those diseases that catarrhs of the nose and ear, especially chronic discharges, are commonly the results of mixed infections. If this view is correct, is it not a fair inference that Mixed Infection Phylacogen may provide a solution to one of the most perplexing problems that the profession has been called upon to solve? There is ground for such conclusion. Certain it is that the Phylacogen referred to has produced some very satisfactory results in numerous cases which had failed to respond to conventional modes of treatment. The writer recalls several cases of this character that have been reported in the medical press during the last year and a half.

An open letter to the profession which is appearing in leading medical journals over the signature of Parke, Davis & Co. adduces additional evidence of the value of Mixed Infection Phylacogen in stubborn nasal and aural infections. This communication, which bears the title "A Letter to Medical Men," cites some cases that appear strongly confirmatory of the mixed-infection theory of etiology. All of the reports are interesting. At least one of them is remarkable; it deals with a housemaid who suffered almost total deafness in one ear for twenty-three years and whose hearing in the defective organ was practically restored after eleven injections of Mixed Infection Phylacogen.

Make Your Old Car LOOK NEW FOR \$6.50



A COMPLETE REPAINTING OUTFIT

Paint your car today and use it tomorrow
15 ITEMS—EVERYTHING NECESSARY

Motor Car Equipment Co.

55 WARREN ST.

NEW YORK

ERGOAPIOL (Smith)

For
**AMENORRHEA
DYSMENORRHEA
MENORRHAGIA
METRORRHAGIA
ETC.**

ERGOAPIOL (Smith) is supplied only in
packages containing twenty capsules.

DOSE: One to two capsules three
or four times a day.

SAMPLES and LITERATURE
SENT ON REQUEST.

MARTIN H. SMITH COMPANY, New York, N.Y., U.S.A.

The Tuberculous Invalid.

The pricking of the Friedmann bubble but served to still-further confirm and accentuate the vital importance of the well defined methods of treatment for tuberculosis, that have given such encouraging results, i. e., fresh air, sunshine, rest, nutritive reinforcement and judicious medication. A proper combination of these four remedial factors is practically certain to place the incipient tuberculous invalid upon the road to recovery, if the patient is intelligently handled and the treatment persisted in. While it is, of course, acknowledged that the first three non-medicinal agents referred to constitute the vital elements of the up-building regime, considerable aid is afforded by judicious medication. Hematinic reinforcement should certainly not be neglected, in view of the secondary anemia which is almost always apparent. Among the agents which have produced the best results in the revitalization of the blood, Pepto-Mangan (Gude) is the most generally eligible and acceptable. As it is thoroughly palatable, neutral in reaction, free from irritant properties and devoid of constipating effect, the digestion of the patient is not disturbed, while the appetite and general vital tone improve more rapidly and satisfactorily than when hygienic and nutritive measures are depended upon exclusively.

THIS SPACE FOR SALE

THIS SPACE FOR SALE

H. M. Anthony

DRUGGIST

1657 Main Street

Buffalo, N. Y.

Bigham-Dambach Co.

Prescription Pharmacists

720 Elmwood Ave., cor. Breckenridge
BUFFALO

CHESCARA COMPOUND

A palatable, non-toxic preparation for the treatment of Whooping Cough, Asthma, Bronchitis, Croup and other diseases of the respiratory tract.

Alcohol 8%

Each drachm contains 10 minims of fluid extract of castanea and three of cascara, with thyme and aromatics.

HENRY D. DEUCHLER

7 Walden Ave. Pharmacist Buffalo, N. Y.

Keller's Pharmacy

739 Seneca Street

Buffalo, N. Y.

PRESCRIPTIONS A SPECIALTY

Both Phones

DOWD'S PHOSPHORUS TONIC

A POWERFUL NERVE AND SYSTEMIC TONIC CONTAINING PHOSPHORUS IN ITS FREE STATE

Used and recommended by some of the most EMINENT MEN IN THE PROFESSION, also many of the LEADING HOSPITALS AND SANITARIUMS in Buffalo and elsewhere.

It is specially recommended in ALL NEUROTIC CONDITIONS in which reported results have been marvelous. Dose—20 to 30 drops three times daily in milk.

As a general tonic or reconstructive agent one ounce equals twelve of cod liver oil.

Sold only to the medical profession; wholesale house, or on prescription at any pharmacy.

Prepared by THE RICHARDSON CO., 334 Franklin Street, Buffalo, N. Y.

Literature on application.

Peter J. Kreuz

PHARMACIST

584 Clinton Street

Cor. Madison

BUFFALO, N. Y.

PARK PHARMACY

HEINZE BROS., Props.

Frontier Phone 37591.

Bell, Tupper 5346

237 Hampshire St., Buffalo, N. Y.

Prescription Specialties. Sick Room Supplies.

Prescriptions called for and delivered.

GIBBS' DRUG STORES

Cor. Delaware and Chippewa St.

Open to Midnight

Cor. Eagle and Washington Sts.

Open All Night

—: NO SUBSTITUTION :—

OUR CLAIM FOR YOUR BUSINESS

THIS SPACE FOR SALE

The Paine Drug Company

Established 1820

Surgical Instruments, Physicians' and
Hospital Supplies

24-26 Main St. East Rochester, N. Y.

Dittly's Drug Store

465 GLENWOOD AVENUE

BUFFALO, N. Y.

Physicians' Prescriptions Carefully
Compounded

FRANK E. LOCK & CO., Pharmacists

1133 Seneca Street, Buffalo, N. Y.

Placing the Blame.

At the present day much discussion is being heard on every side concerning the role of the intestinal canal in the causation and development of innumerable diseases. Once the liver was the chief malefactor, and a disordered liver if not blamed as the chief cause of pretty nearly every disease that "human flesh is heir to," was sure to be considered particeps criminis. As the indictment of the liver has been narrowed and its culpability brought within more specific limits, some other culprit has become necessary. How natural to turn to the liver's closest associate and known accomplice, the intestinal tract! Thus it is that the "human cesspool," as Sir Wm. Arbuthnot Lane has styled the intestinal canal, has had to stand accused of the etiologic crimes that the liver is no longer held accountable for.

But, as always happens, interest in the depravity of the new culprit has made the actual misdeeds of the old lose much of their importance. And so, gradually but none the less surely, we have grown to ignore the crimes of the liver, until at last, in our indignation at and fear of the intestines, we are almost ready to look upon the liver as "more sinned against than sinning," a victim of hasty and unwarranted accusation.

With this state of affairs, it is not surprising that the liver, wily and dangerous old offender that it is, has been allowed to perpetrate many outrages without being called to account. It is high time that medical men awoke to the fact that the liver is the same old trouble-maker it has always been, and needs watching as closely as ever.

Indeed, recent study of intestinal stasis and associated conditions has shown that the liver is often the main culprit even in this affection. The action of the bile in controlling intestinal putrefaction, arresting bacterial activity, promoting peristalsis, and assisting digestion makes it highly necessary that this important secretion be frequently interrogated as to its quantity, and any decrease in the bile output given instant and vigorous attention.

This naturally raises the question, what is the best and most effective cholagogue? Many and various hepatic stimulants have been brought forward, but experience has shown that for promoting the functional activity of the liver nothing is superior to Chionia. This is an exceedingly effective preparation of *Chionanthus Virginica*. Administered in proper dosage it is a powerful hepatic stimulant, increasing the flow of bile, without, however, producing the marked and extreme catharsis that makes so many other hepatic remedies objectionable.

Clinical experience has shown that Chionia is therefore, an exceedingly effective means of correcting intestinal disorders due to the shortcomings of the liver. In other words, its use can be relied upon to restore both offenders to good behavior.

A MARKED POWER

to modify perverted nerve function, without subjecting the patient to untoward effects, has earned for

PASADYNE

(DANIEL'S CONCENTRATED TINCTURE)
(OF PASSIFLORA INCARNATA.)

a rare reputation among sedative and soporific agents.

USE IT WHENEVER A CALMATIVE IS INDICATED.

PASADYNE is the new name for Passiflora Incarnata (Daniel's Concentrated Tincture) adopted for convenience and to prevent substitution.

SAMPLES AND LITERATURE SUPPLIED TO PHYSICIANS PAYING EXPRESS CHARGES.

Laboratory of JOHN B. DANIEL, Atlanta, Ga.

200,000 New Boosters for Buffalo

The 200,000 strangers who attended conventions in Buffalo during 1913 are engaged in some wonderful publicity for the beautiful city that entertained them. Buffalo's fame is being spread broadcast, not alone in this country, but throughout the world at large. Buffalo has made friends of these thousands of visitors in the past year and they are telling of her pleasant situation, her hospitality, her wonderful advantages.

These visitors—these 200,000 new friends—were induced to come to Buffalo through the efforts of the Convention Bureau of the Buffalo Chamber of Commerce.

Now, this is but one part of the great work being carried on by the Buffalo Chamber of Commerce.

Each member may feel that he is helping.

Are YOU a Member?

